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DEPARTMENT OF CITY PLANNING 100 LARKIN STREET · SAN FRANCISCO, CALIFORNIA 94102

SAN FRANCISCO DEPARTMENT OF CITY PLANNING
100 LARKIN ST., SAN FRANCISCO

DRAFT ENVIRONMENTAL IMPACT REPORT

FRANCISCO PLACE

OFFICE / CONDOMINIUMS
530 CHESTNUT STREET

EE 80.248

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TABLE OF CONTENTS

PAGE

TABLE OF CONTENTS---------- i

LIST OF FIGURES---------- iii

LIST OF TABLES---------- iv

I. SUMMARY---------- 1

II. PROJECT DESCRIPTION

A. Sponsor and Objectives---------- 4
B. Project Location---------- 4
C. Project Characteristics---------- 4
D. Scheduling & Cost---------- 19
E. Approvals Required---------- 19

III. ENVIRONMENTAL SETTING

A. Land Use & Planning Considerations---------- 21
B. Historic Resources---------- 25
C. Visual Quality & Urban Design---------- 30
D. Transportation---------- 33
E. Air Quality---------- 45
F. Noise---------- 47
G. Energy---------- 50
H. Geotechnical---------- 51
I. Community Services---------- 51
J. Fiscal & Economic Factors---------- 52

IV. ENVIRONMENTAL IMPACTS

A. Land Use & Planning Considerations---------- 53
B. Historic Resources---------- 56
C. Visual Quality & Urban Design---------- 58
D. Transportation---------- 60
E. Air Quality---------- 72
F. Noise---------- 73
G. Energy---------- 74
H. Geotechnical---------- 81
I. Community Services---------- 82
J. Fiscal & Economic Factors---------- 84
K. Summary of Community Concerns---------- 92

V. MITIGATION MEASURES

A. Land Use & Planning Considerations---------- 94
B. Historic Resources---------- 94
C. Visual Quality & Urban Design---------- 95
D. Transportation---------- 96
E. Air Quality---------- 99
F. Noise & Construction---------- 99
G. Energy---------- 100
H. Geotechnical---------- 101
I. Community Services---------- 102

TABLE OF CONTENTS

VI. SIGNIFICANT ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED IF THE PROJECT IS IMPLEMENTED---------------------- 104

VII. ALTERNATIVES TO THE PROPOSED PROJECT
- A. No Project--- 105
- B. Industrial Use--------------------------------------- 105
- C. Removal of the Towers-------------------------------- 108
- D. Preservation of Additional Existing Structures------- 111
- E. All Residential Use---------------------------------- 114
- F. Maximum Development---------------------------------- 117

VIII. DEIR AUTHORS AND PERSONS CONSULTED-------------------- 121

IX. DISTRIBUTION LIST------------------------------------- 124

X. APPENDICES--- 131
- A. Details of Existing Use------------------------------ 132
- B. Transportation Assumptions and Methodologies--------- 137
- C. 1976 Architectural Inventory------------------------- 149
- D. Shadow Diagrams-------------------------------------- 153
- E. Initial Study-- 157

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LIST OF FIGURES

Figure Page

1. Location of the Project 5
2. Francisco Place Elevation 6
3. Chestnut Street Elevation 6
4. Artist's Rendering of Francisco Street Towers 8
5. Artist's Rendering of Chestnut Street Units 9
6. Artist's Rendering of Interior Courtyard 10
7. Site Plan 11
8. North-South Illustrative Section 12
9. Entry Level Floor Plan/Commercial 13
10. Entry Level Floor Plan/Residential 14
11. Parking Plans 15
12. Mason Street Elevation 16
13. Typical Floor Plans 17
14. Landscape Plan 20
15. Land Use Map 22
16. Zoning Map 22
17. Detail From US. Coast Survey Map, 1852 27
18. Detail from U.S. Coast Survey Map, 1857 28
19. Location of Structures Appearing on 1852 and 1857 Coast Survey Maps 29
20. View of the Towers from Francisco 31
21. View of the Site from Telegraph Hill 32
22. View of the Silos from Mason Street 34
23. View of the Existing Chestnut Street Facade 34
24. Transportation Network 35
25. Peak Hour Service Levels (4:30-5:30PM) 37
26. Existing Daily Traffic Volumes 37
27. Peak Hour Pedestrian Flows (3-4PM) 38
28. Peak Period of Combined Flow of Pedestrians and Vehicles 38
29. Pedestrian Volumes During Peak Traffic Hours 40
30. Parking Survey Area 40
31. Noise Monitoring Positions 48
32. Impact of Excavation on Remains of Meiggs Sawmill 57
33. Peak Hour Traffic Generated by the Project 62
34. Daily Energy Conservation 76
35. Monthly Energy Conservation 76
36. Total Monthly Gas Consumption 78
37. Total Monthly Electrical Consumption 78
38. Peak Daily Gas Consumption 79
39. Peak Daily Electrical Consumption 79

A-1. North Elevation of Bauer-Schweitzer Towers 133
A-2. South Elevation of Bauer-Schweitzer Plant 133
A-3. East Elevation of Bauer-Schweitzer Plant 134
A-4. West Elevation of Bauer-Schweitzer Plant 134
A-5. Bauer-Schweitzer Site Plan 135
A-6. Section through the Working House and Kiln Room 136
A-7. Section through Machinery Hall and Storage Tanks 136
C-1. Architecturally significant Structures 152
D-1. December 21st Shadows 154
D-2. September 21st Shadows 155
D-3. June 21st Shadows 156

LIST OF TABLES

Table Page

1. Unit Schedule and Costs-- 18
2. Parking Survey-- 41
3. MUNI Service in Project Area----------------------------------- 43
4. MUNI Service Changes in Project Area Under Five Year Plan-- 44
5. San Francisco Air Pollutant Summary----------------------------- 46
6. Existing Ambient Noise Levels - dBA----------------------------- 49
7. Energy Consumption for the Bauer-Schweitzer Malting Mill--- 50
8. Project Trip Generation and Mode Usage-------------------------- 61
9. Impact on Traffic Levels of Service(4:30-5:30 PM)--------------- 61
10. Impacts on Traffic Levels of Service (4:30-5:30PM)-------------- 62
11. Expected Ranges of Construction Noise Levels at the Project Site-- 73
12. Energy Consumption of the Malting Mill Compared to the Project-- 80
13. Distribution of Property Taxes--------------------------------- 84
14. Employment Impacts of the Proposed Project On Bay Area Jobs--- 88
15. Transportation Impacts of Alternative C------------------------ 110
16. Transportation Impacts of Alternative E------------------------ 116
17. Transportation Impacts of Alternative F------------------------ 118

B-1. Level of Service Definitions for Unsignalized Intersections--- 137

B-2. Pedestrian Levels of Service---------------------------------- 138

B-3. Level of Service and Expected Delay for Reserve Capacity Ranges-- 139

B-4. Project Impacts on Future Muni Load Factors-------------------- 145

B-5. Project Truck Trip Generation-------------------------------- 146

. Architectural Survey Classification------------------------------ 151

. Architectural Inventory for Site Vicinity------------------------ 149

I. SUMMARY

Francisco Place Venture, the project sponsor, has applied for a Conditional Use authorization to provide a mixed use development in San Francisco's North Beach. The project would involve demolition of portions of the Bauer-Schweitzer Malting Company, followed by adaptive reuse of two of the buildings and one of the silos as well as new construction. The project would include 93 dwelling units including 12 that would be set aside for moderate income families. There would be 48,000 square feet of offices at or below street level. There would be about 191 parking spaces on the site. /1/ The zoning is RC-3 (Residential-Commercial Combined, Medium Density).

Impacts

The project would involve removal of buildings of one of the few remaining barrel malting mills west of the Mississippi River and the last malting mill operation in North Beach. Storage sheds, a warehouse, offices and silos would be demolished and replaced with 93 dwelling units and 48,000 square feet (sq. ft.) of offices. Excavation for underground garages could impact a part of the remains of Meigg's Sawmill which may be beneath the site, although about 50% of the sawmill remains, if present, are under an area that would not be excavated.

The project would create about 190 office jobs and has contributed to a loss of 20 manufacturing jobs.

During construction, noise levels would be increased by about 68-83 dBA (A-weighted decibel) for up to 175 days.

The project would add 93 dwelling units to the City, on a site where only one now exists. The residential units and 48,000 sq. ft. of office would increase trips to the site by about 1,500 per day, with about 280 in the peak hour. Of the 280, about 130 would be on Muni and about 110 would be by auto. Vehicle traffic would reduce service levels on Francisco Street by one to 1/2 grade on the service level scale with levels as low as C (average delays) in the peak hour./2/ The project would increase pedestrian activity on the four blocks surrounding the site by as much as 74%. This would result in more pedestrian/vehicle conflicts which could reduce service levels to D (long delays) on the road network. The cumulative impacts of traffic from this and other projects would add between 25-65% more traffic to the streets around the site.

The existing towers that front on Chestnut Street are designated landmarks which would be altered by the project. The most notable change would be the complete redesign of the exterior facades to adapt them to housing and office use. Much of the original material of which the towers are made would be removed and replaced with glass. The next most noticable change would be on the interior.

Floors would be installed in the 10-story vertical space which is largely open from the ground floor to the roof.

Mitigation Measures

Project driveways would be removed as far as possible from vulnerable pedestrian groups that use the Telegraph Hill Neighborhood Center on Chestnut Street. There would be a 4% (50 car) increase in traffic on Chestnut.

The project would satisfy all of its parking demand. Long-term leases would be available to neighborhood residents at a discounted rate for the use of on-site office parking spaces during the evening hours. In addition, about 35 on-street spaces would be added for public use due to removal of curb cuts and the railroad track and boxcar.

The project would reduce energy consumption on the site, as the project would require about 30% of the energy used in malting operations. The project would use less energy than required by standards of the State of California, Title24, by use of insulation, double-glazed windows and room-controlled heating as recommended by the sponsor's mechanical engineer.

The sponsor agrees to notify the Office of Environmental Review (OER) should any archeological remains be found on the site during excavation. A qualified professional archeologist would be retained to assist OER in evaluating the significance of the remains and methods of dealing with them.

The sponsor agrees to help mitigate light and glare impacts due to the project by specifying non-reflective, tinted glass and by not istalling exterior lights above the second floor.

Construction noise would be reduced by about 12-13 dBA by limiting the hours and use of equipment operation, use of state-of-the-art noise control devices, use of the quietest procedures, and elimination of unnecessary engine use.

The project would increase landscaping and open space on and around the site. Francisco, Mason and Chestnut would be planted with street trees and sidewalks would be repaved where needed. The center of the site would have a series of interconnected courtyards where no mid-block open space now exists. The courtyards would be designed so that open space adjoins existing rear yards on the site block.

I. SUMMARY

Alternatives

Six alternatives to the proposed project are analyzed in this EIR:

A. No project
B. Industrial reuse
C. Removal of the towers
D. Preservation of additional structures
E. All residential, no office
F. Maximum development

/1/ Parking plans for the project are schematic; up to 5% more spaces may be provided over the minimum 189 spaces required by code.

/2/ Service levels are defined in Table B-1 of the Transportation Appendix, page 137.

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II. PROJECT DESCRIPTION

A. SPONSOR AND OBJECTIVES

Francisco Place Venture, the project sponsor, proposes adaptive reuse of the Bauer-Schweitzer malting mill in North Beach. The project would involve replacement and rehabilitation of industrial facilities for use as residential condominiums, office space and parking. The sponsor proposes to provide 93 condominiums, 12 of which would be set aside for moderate income families, and 48,000 sq. ft. (net) of office space at or below street level. The sponsor expects to earn a profit with the sale of the office space and the condominium units. The project architects are Backen, Arrigoni and Ross, a San Francisco firm.

B. PROJECT LOCATION

The site is located in the North Beach area of San Francisco. The project would occupy a 52,500 sq. ft. site (1.2 acres) in Assessor's Block 52, bounded by Francisco on the north, Chestnut on the south, Powell on the east and Mason on the west. Figure 1 (p.5) shows location of the site and other parcels in the block. The majority of the site (44,900 sq. ft.) consists of lot 10 which contains the malting mill structures. The remainder of the site (7,600 sq. ft.) consists of lots 18, 19, and 20 which front on Mason Street. Lot 18 contains a wood frame cottage; lots 19 and 20 are used for surface parking.

C. PROJECT CHARACTERISTICS

The entire project would consist of about 138,000 sq. ft. (156,000 gross). There would be about 90,100 net sq. ft. of residences (104,000 gross) and 48,000 net sq. ft. of offices (52,000 gross). The Francisco Place project would be a planned unit development (PUD) involving adaptive reuse of two existing malting fermentation and drying towers and one existing silo and demolition of other structures, replacing them with residential condominiums, office space, and parking. Structures that would be demolished include five large and eight small silos, a wood frame building on Francisco Street, a masonry office building on Chestnut and a wood frame cottage on Mason. The towers would contain 40 dwelling units on seven floors and approximately 10,000 sq. ft. of offices. The retained silo would contain stairs and two elevators for the use of tower residents. Four new buildings containing 53 dwelling units and 38,000 sq. ft. of offices and two floors of parking would be constructed. There would be about 191 off-street parking spaces including four spaces for disabled persons distributed within three basements. Access to 98 commercial parking spaces would be from a driveway on Francisco Street and access to 93 residential parking spaces would be from a driveway on Mason Street. Figures 2 and 3 (p. 6) are elevations of the renovated towers as seen from Francisco and new

II. PROJECT DESCRIPTION

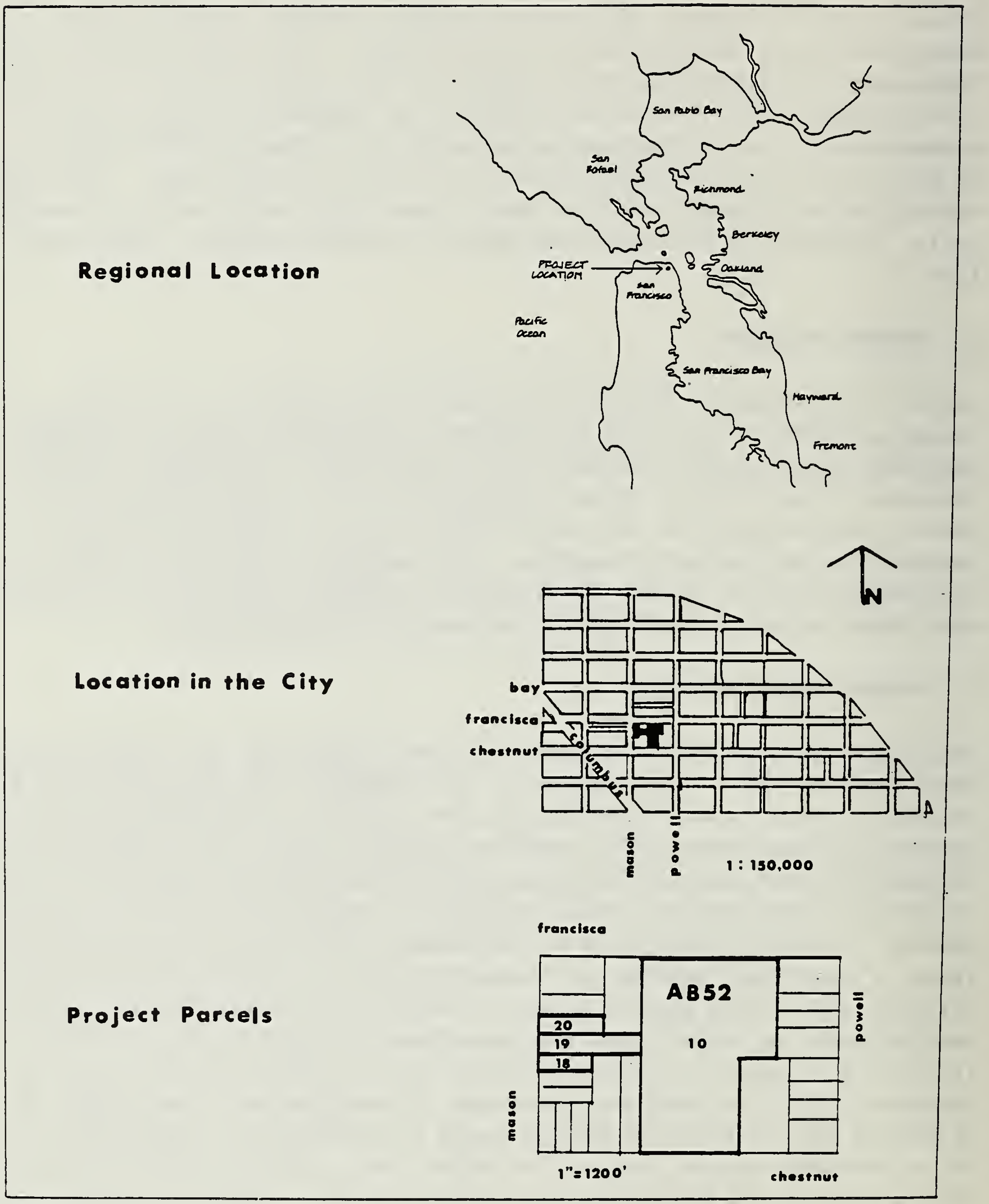


Figure 1

LOCATION OF THE PROJECT

Source: Planning Analysis and Development

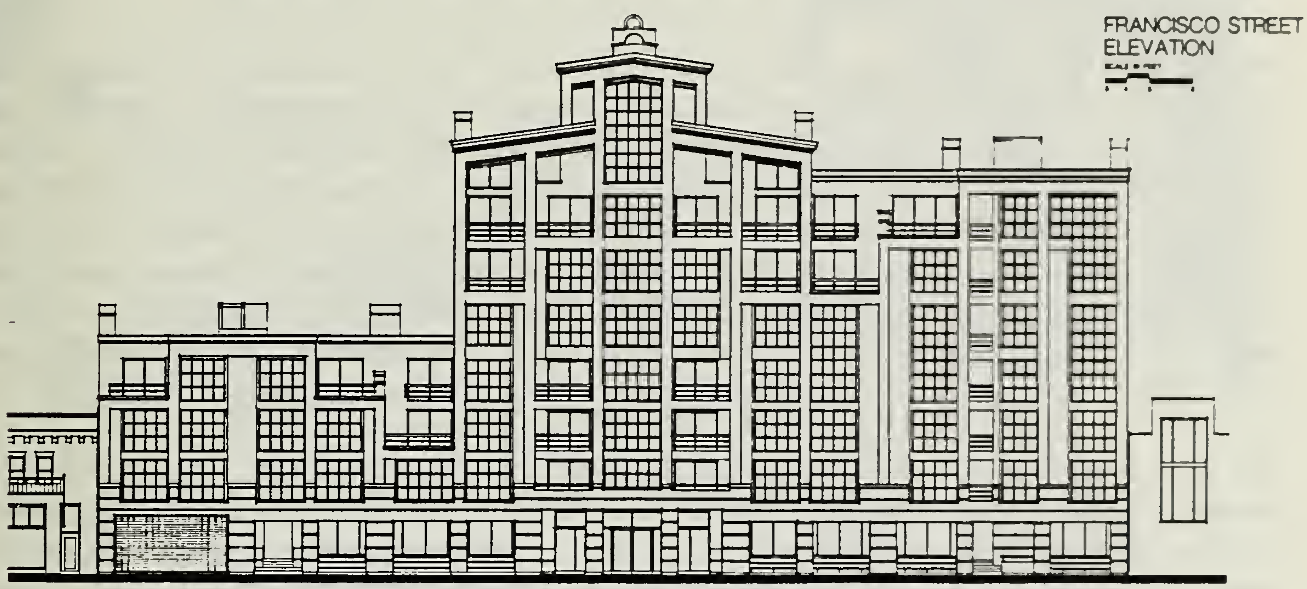


Figure 2

FRANCISCO STREET ELEVATION
Source: Backen, Arrigoni & Ross

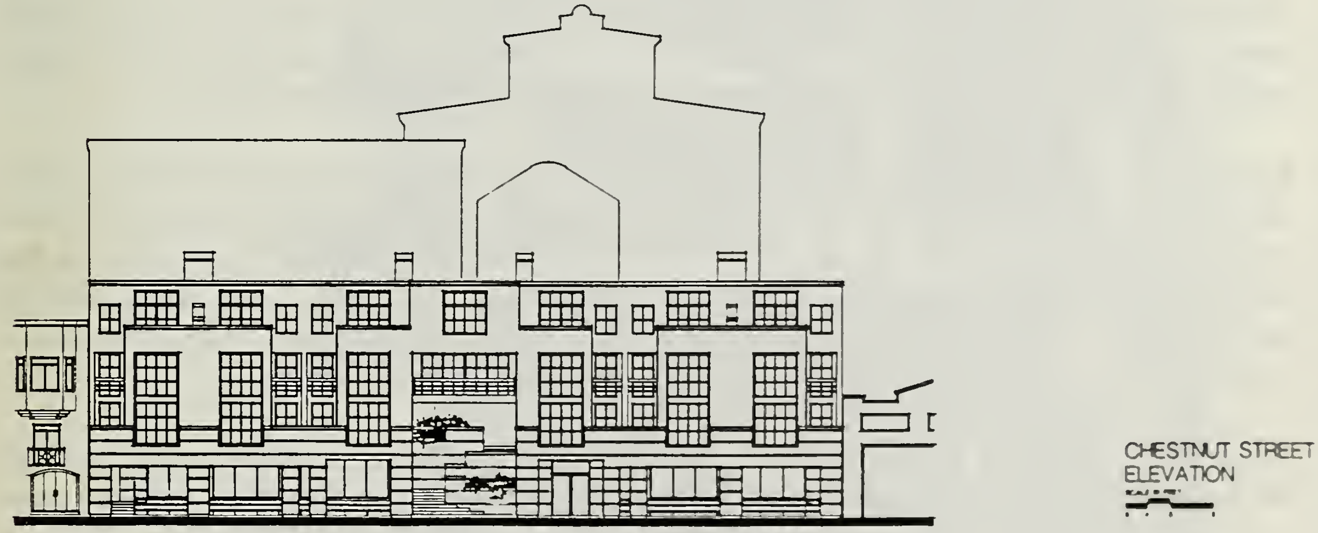


Figure 3

CHESTNUT STREET ELEVATION
Source: Backen, Arrigoni & Ross

construction proposed for Chestnut Street. Figures 4 and 5 (pp. 8,9) are artist's renderings of the Francisco Street Towers and the Chestnut Street units. Figure 6 (p. 10) is a rendering of the interior courtyard. Figures 7 and 8 (pp. 11,12) are the site plan and site section, respectively.

The entry level floor plan for commercial space is illustrated in Figure 9 (p. 13). Offices would overlook but not have access to the courtyards. Pedestrians would enter the project from lobbies on Francisco and Chestnut; motorists would enter via elevators from the garage. There would be approximately 28,000 sq. ft. of office space at street level and another 20,000 sq. ft. below grade in the first basement. The first residential level would be above street level and is shown in Figure 10 (p. 14). The dwelling units would overlook and have access to the courtyards in addition to private open space on decks, patios and balconies.

The first basement would underlie most of the site, except at and near the towers. It would accommodate about 20 commercial parking spaces. An additional 78 commercial parking spaces would be provided in the second basement. Commercial parking access would be via Francisco Street. There would be a ramp connecting the first and second basements. (See Parking Plans, p. 15). Access to 93 residential parking spaces, would be via Mason Street to a ramp under the 12 Mason Street units, leading to the third basement under lot 10.

Building 1 on the site plan consists of the two towers, which would be functionally interconnected and served by common elevators and stairs contained in the silo through the fifth floor. The first floor of offices would be approximately at the level of Francisco Street. The second floor of offices would be below grade in the basement in the towers. There would not be garages under the towers as it would be infeasible to excavate beneath them.

Building 2 on the site plan is the North Podium, which fronts on Francisco, abuts the towers and is oriented toward the street and an interior courtyard. This new building would contain 21 dwelling units at and above the level of the podium and approximately 3,000 sq. ft. of offices at street level with parking below in the first and second basement. This and other new buildings would be a maximum of 40 feet high as permitted by the City Planning Code.

Buildings 3 and 4 on the site plan would contain ten dwellings each with offices at and below grade, and two levels of parking. Building 3 would be located near the center of the site and be flanked by courtyards at the first and second floors. Building 4 would front on Chestnut, and at street level would connect with Building 3 office space. An elevator core would be accessible from Chestnut Street. Figures 9 and 10 (pp. 13,14) show the entry level floor plans for these buildings. Light and air would be brought to the lower level of

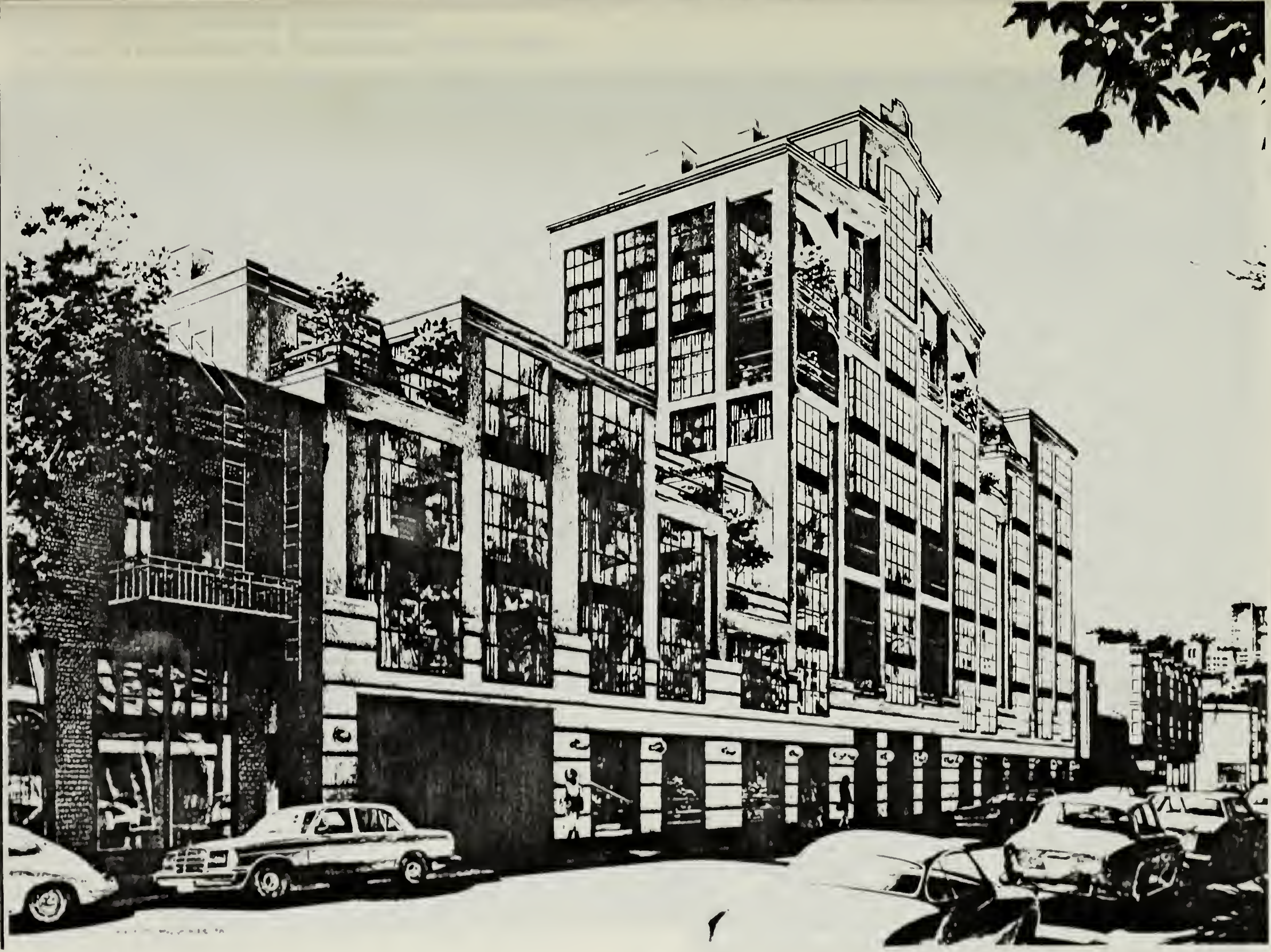


Figure 4

ARTIST'S RENDERING OF FRANCISCO STREET TOWERS
Source: Walter Thomasson & Associates

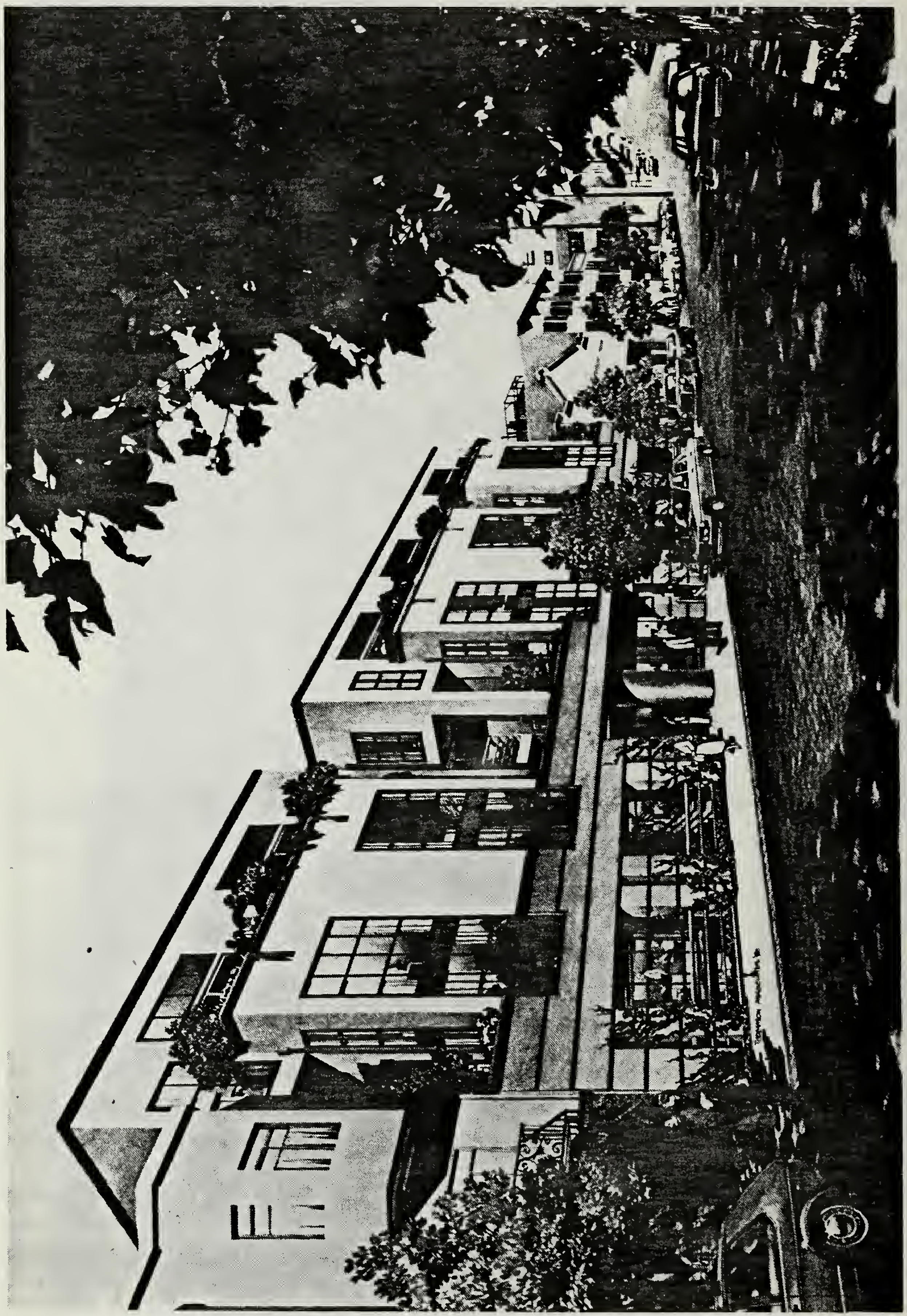


Figure 5
ARTIST'S RENDERING OF CHESTNUT STREET UNITS
Source: Walter Thomasson & Associates

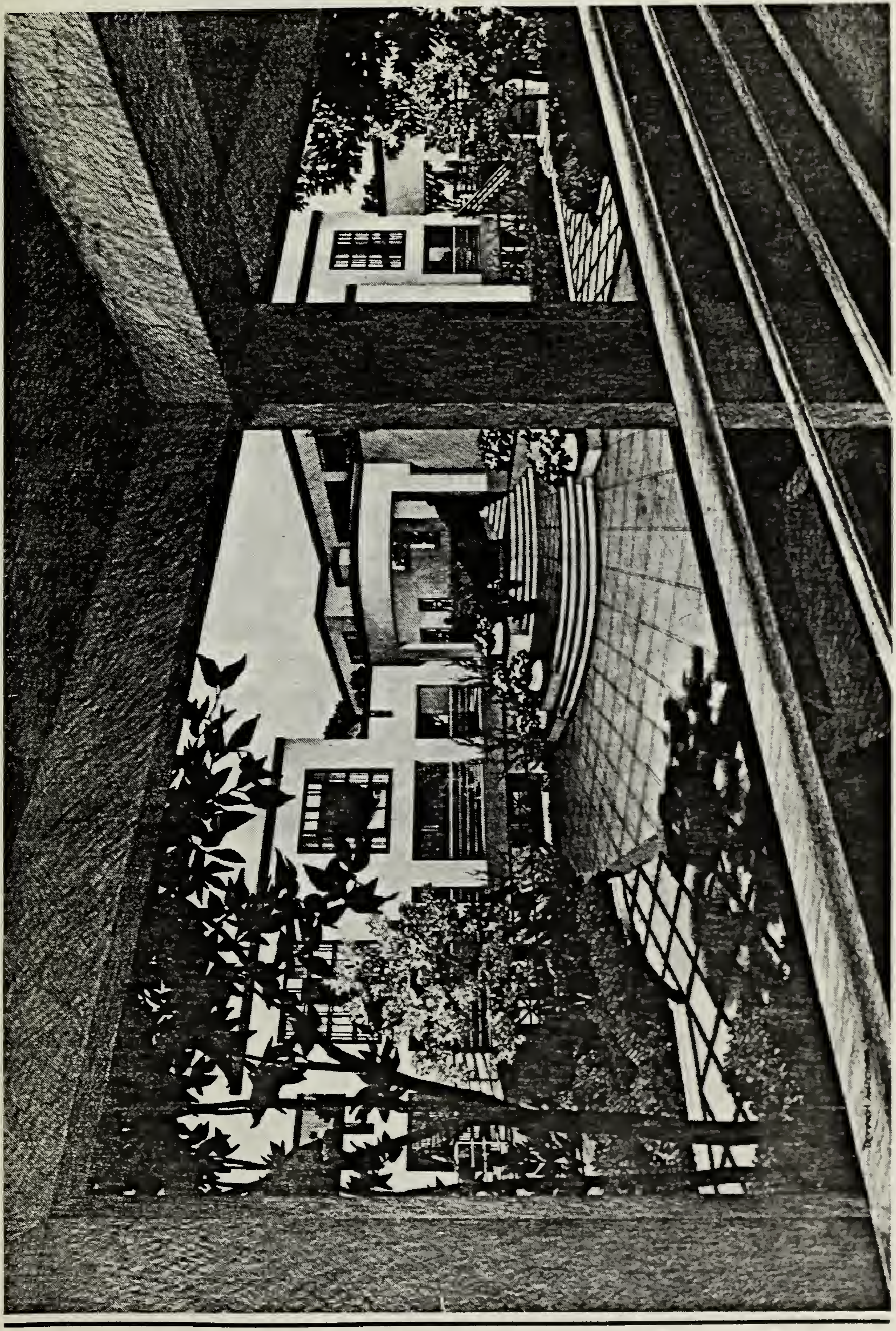


Figure 8
ARTIST'S RENDERING OF INTERIOR COURTYARD
Source: Walter Thomasson & Associates

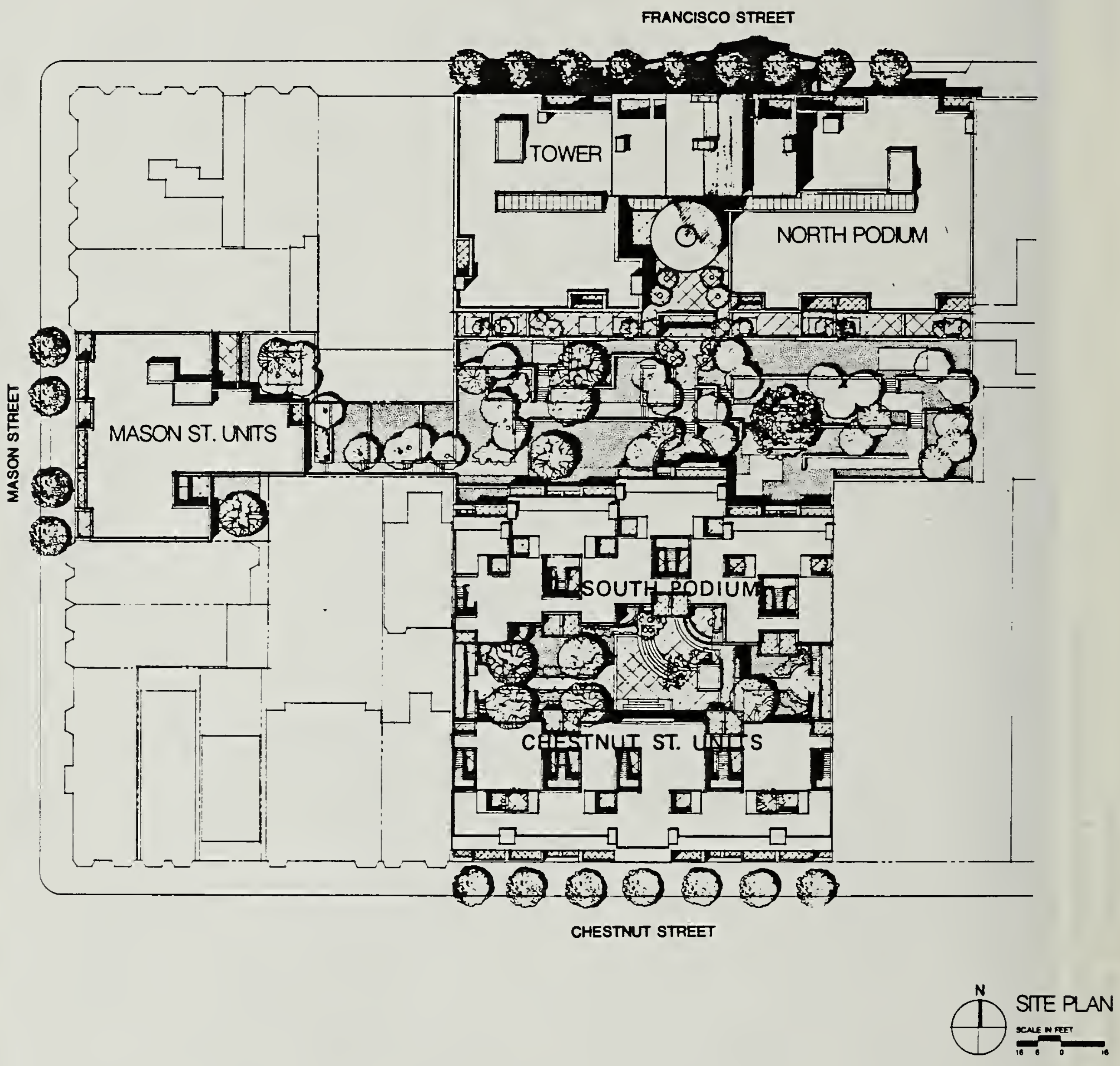


Figure 7

SITE PLAN

Source: Backen, Arrigoni & Ross

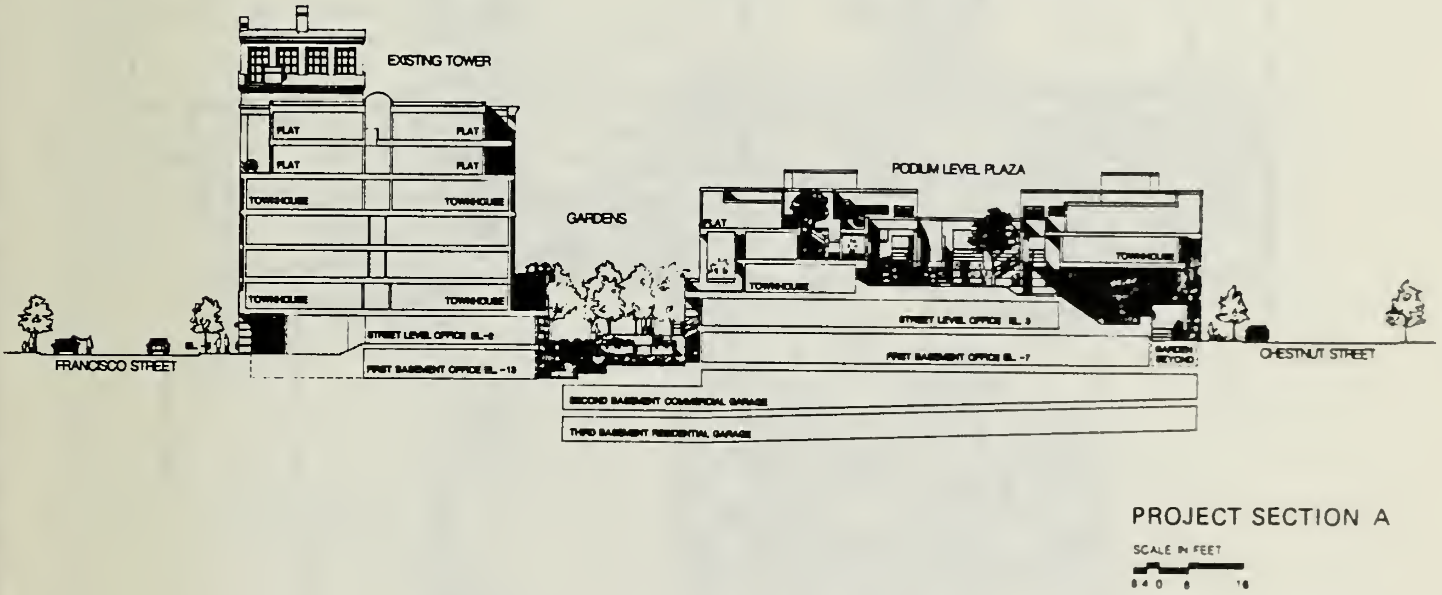


Figure 8

NORTH-SOUTH DIAGRAMMATIC SECTION

Source: Backen, Arrigoni & Ross

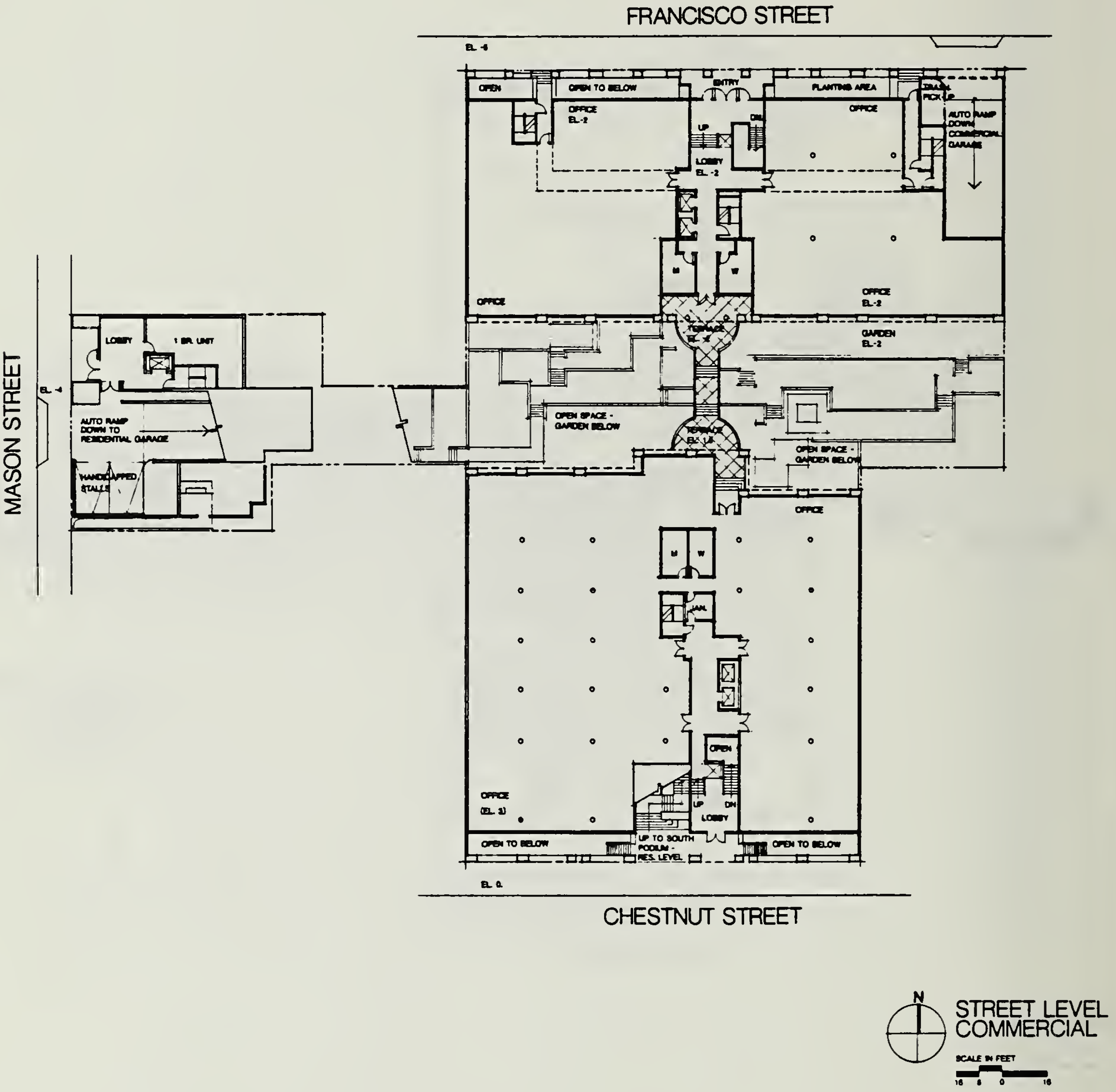


Figure 9

ENTRY LEVEL FLOOR PLAN/COMMERCIAL

Source: Backen, Arrigoni & Ross

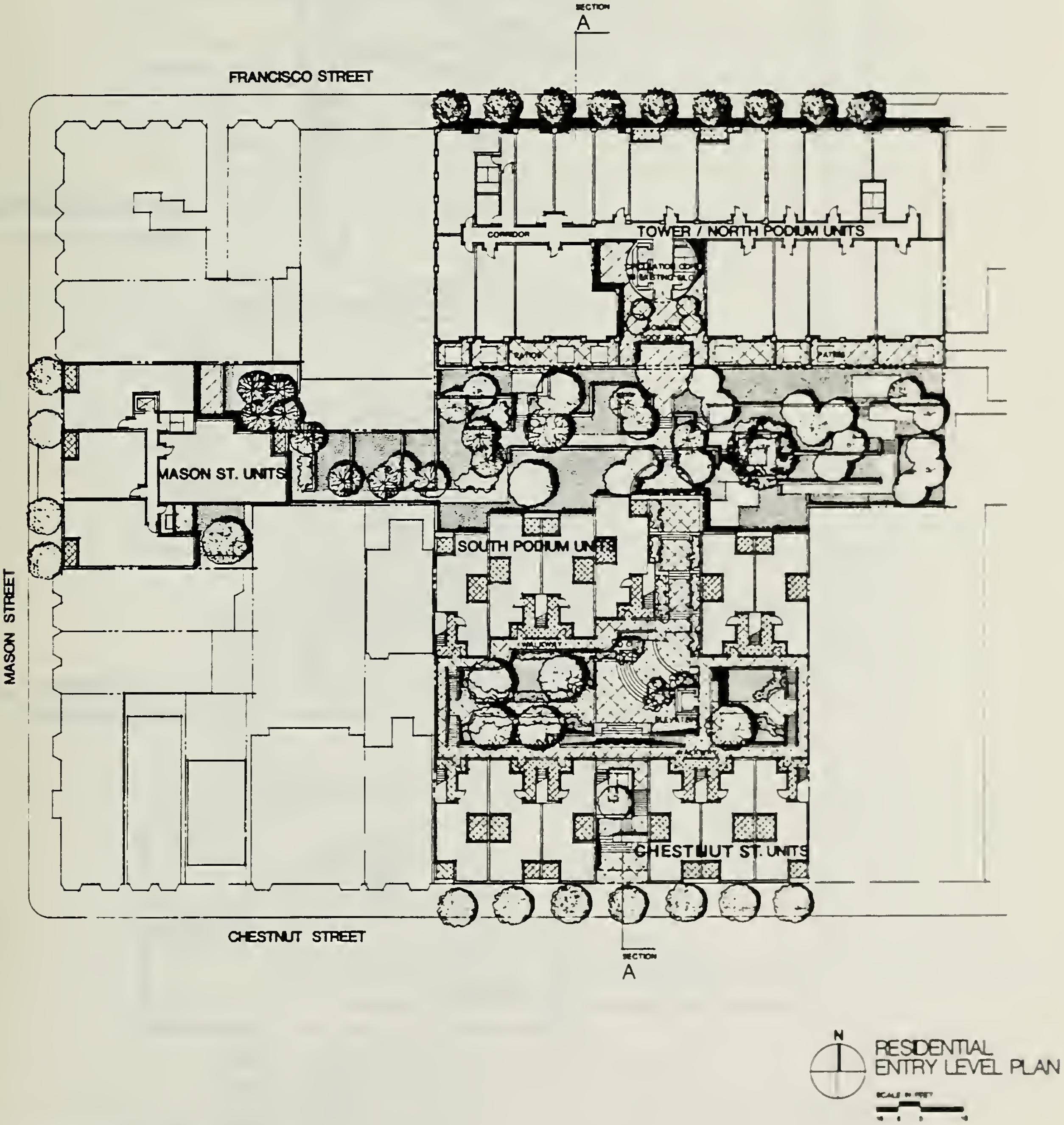


Figure 10

ENTRY LEVEL FLOOR PLAN/RESIDENTIAL

Source: Backen, Arrigoni & Ross

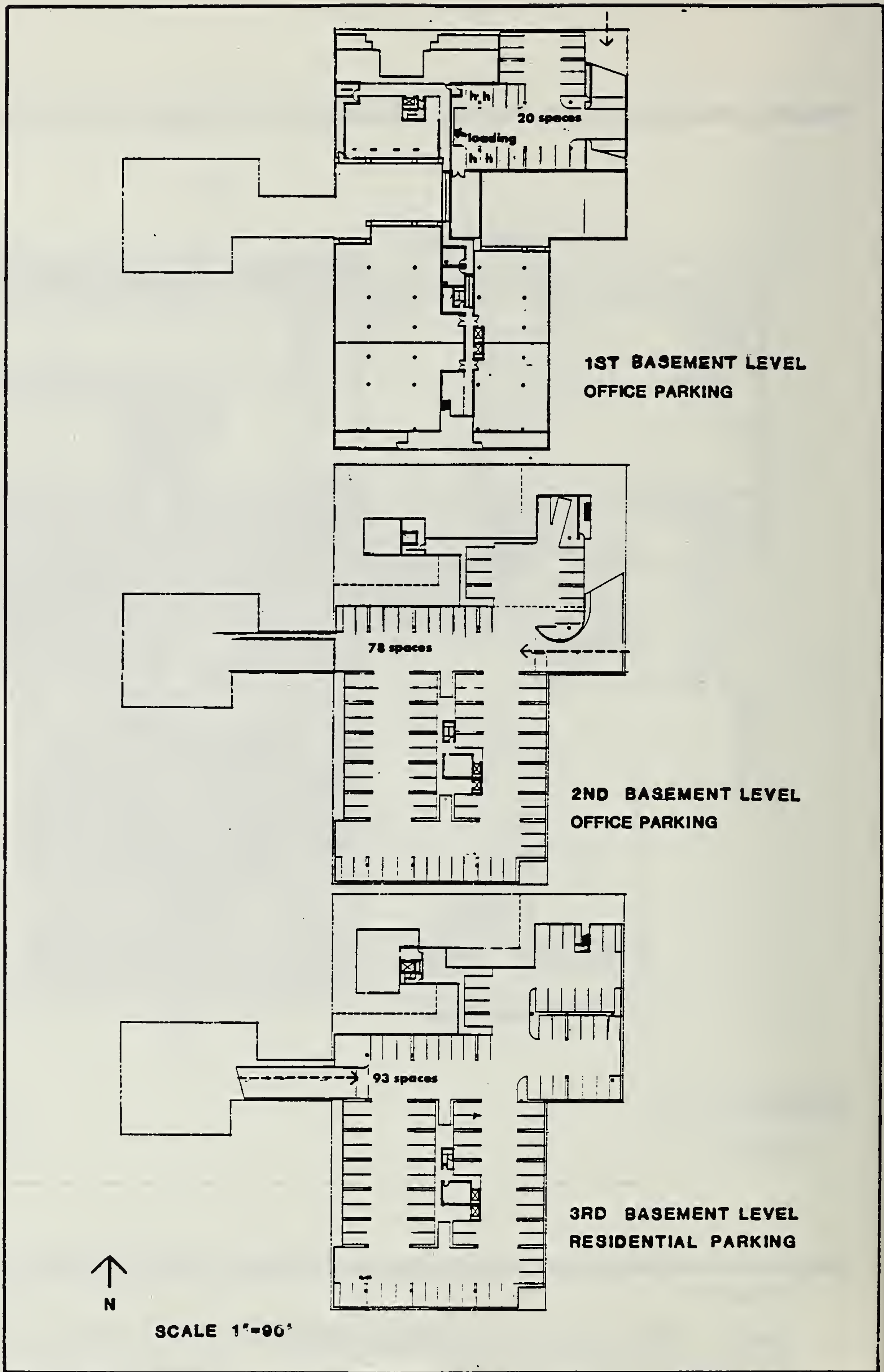


Figure 11

PARKING PLANS

Source: Backen, Arrigoni & Ross

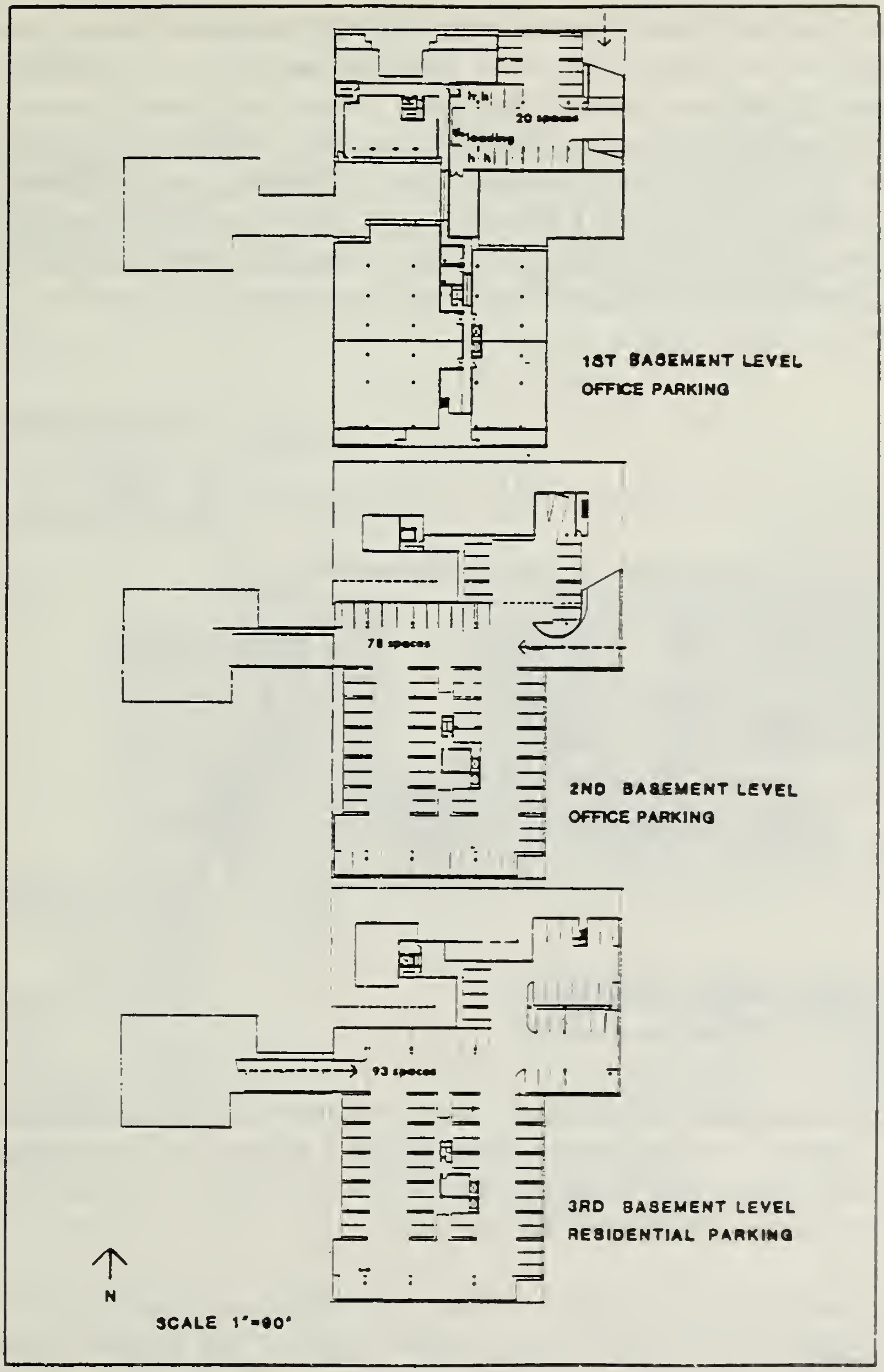


Figure 11

PARKING PLANS

Source: Backen, Arrigoni & Ross

offices at the center of the site by a cut-away in the northern courtyard. This is illustrated by the site section, Figure 8 (p. 12).

Building 5 on the site plan would consist of 12 moderate income dwelling units. At grade would be the lobby, the lower level of one unit, two parking spaces and the ramp down to the residential garage. These are shown in the entry level floor plan for commercial uses (Figure 9, p. 13). Behind the building would be a landscaped and terraced yard stepped down to adjoin the courtyard adjacent to the towers. Residential units would open directly onto courtyards and/or private patios; the courtyards would be accessible from all of the buildings. Units on upper stories would have private balconies. Figure 12 (below) shows the Mason Street elevation.

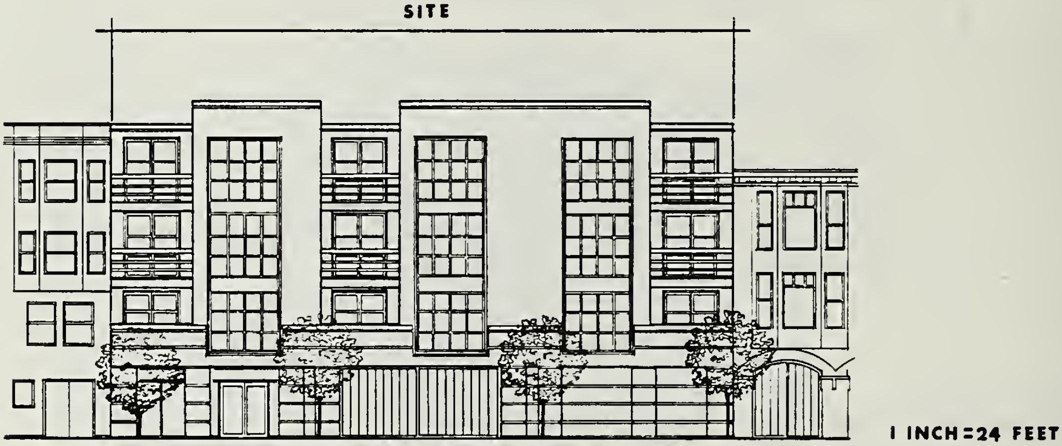


Figure 12: MASON STREET ELEVATION
Source: Backen, Arrigoni & Ross

Typical floor plans for residential floors two through eight are shown in Figure 13, (p.17). Table 1 (p.18) gives unit sizes, number of bedrooms, projected sales price and price per square foot in 1981 dollars. Office rental in 1981 dollars is estimated at $22 per square foot.

The project would offer 6 (6%) studios, 64 (69%) one-bedroom units, 20 (22%) two-bedroom units, and 3 (3%) three-bedroom units. The sponsor intends to seek Section 8 subsidies for 12 moderate income units. The moderate income units in the Mason Street building would be family-oriented and would contain proportionately more two and three bedroom units than would the other buildings on the site. The Mason Street family units are intentionally separated from office space.

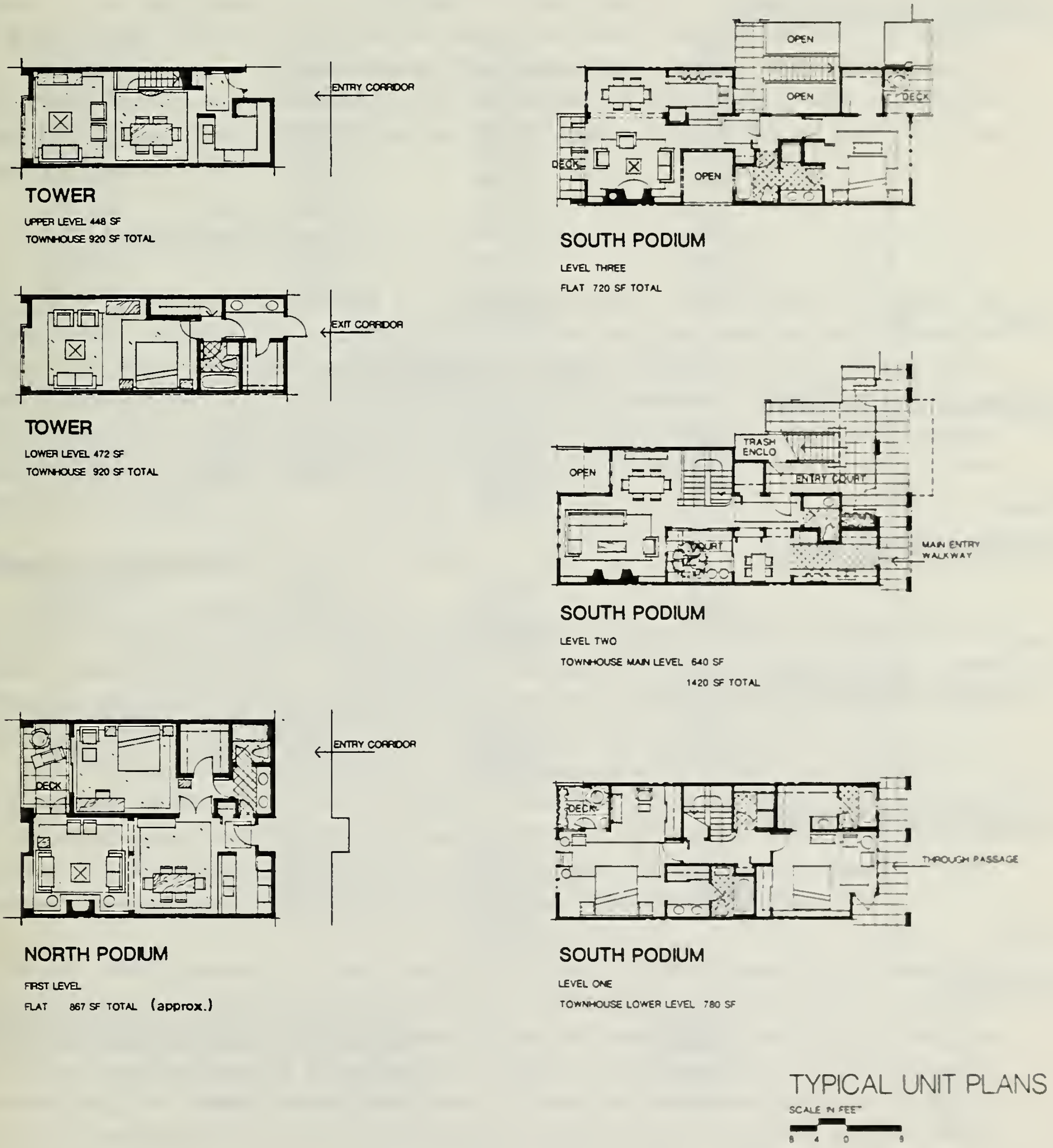


Figure 13

TYPICAL FLOOR PLANS

Source: Backen, Arrigoni & Ross

Table 1
FRANCISCO PLACE RESIDENTIAL CONDOMINIUMS

	No. of Units	Floor Area (sq.ft.)	Total Area (sq.ft.)	Type of Unit	1981 Sales Price	Prices/sq.ft
			RENOVATION			
Building 1: Existing Towers						
	3	430	1290	studio	$125,000	$298.00
	3	720	2,160	1 Bdrm	150,000	208.00
	3	750	2,250	1 Bdrm	175,000	233.00
	3	770	2,310	1 Bdrm	160,000	208.00
	6	860	5,160	1 Bdrm + den	172,500	201.00
	2	920	1,840	1 Bdrm	210,000	228.00
	4	930	3,720	1 Bdrm + den	225,000	242.00
	12	1,014	12,168	1 Bdrm + den	210,000	207.00
	3	1,026	3,078	2 Bdrm	240,000	234.00
	1	2,274	2,274	1 Bdrm	500,000	220.00
Total	40		36,250			
			NEW CONSTRUCTION			
Building 2: North Podium						
	3	480	1,440	studio	$135,000	$281.00
	6	770	4,620	1 Bdrm + den	160,000	208.00
	12	920	11,040	1 Bdrm + den	195,000	212.00
Total	21		17,100			
Building 3: South Podium						
	5	740	3,700	1 Bdrm	$175,000	$236.00
	5	1,620	8,100	2 Bdrm + den	275,000	170.00
Total	10		11,800			
Building 4: Chestnut Street Units						
	5	740	3,700	1 Bdrm	$175,000	$236.00
	5	1,620	8,100	2 Bdrm + den	275,000	170.00
Total	10		11,800			
Building 5: Mason Street [1/]						
	2	710	1,420	1 Bdrm		
	7	1,080	7,560	2 Bdrm		
	3	1,400	4,200	3 Bdrm		
Total	12		13,180			

Summary

6	Studio	76,950 sq. ft. (net) market rate units
64	1 Bdrm	13,180 sq. ft. (net) low & moderate income unit
20	2 Bdrm	48,000 sq. ft. (net) office
3	3 Bdrm	138,130 sq. ft. (net)
93		

$16,130,000	Total Value of market units
$199,000	Average cost/unit
$210/sq. ft.	Average price/sq. ft. (net) of market units

[1/] Mason Street units may be rental or owner-occupied; moderate income sales price not yet determined.

The common open space would comprise 35% of the site area; private and common open space combined would account for about 50% of the site area. Figure 14 (p.20) presents the landscape plan for the site.

Residential parking would be provided at the rate of 1.0 per unit. Office parking would be provided at approximately one space per 500 sq. ft. of office area. There would be two more spaces than required. Yellow on-street loading spaces would be provided alongside the entrances to the project and off-street loading spaces would be provided for two panel trucks and delivery vans with an 11-foot clearance.

D. SCHEDULING AND COST

The project would be built over a 16 month period. Demolition of existing buildings would require six months; site preparation, excavation and foundation work would require four months. The tower would be renovated concurrently with new construction and would take approximately six months. Construction costs are estimated at $23 million in 1981 dollars. Excluding the moderate income units, the average condominium would cost about $199,000, or $210 per square foot in 1981 dollars.

E. APPROVALS REQUIRED

The project requires a Conditional Use authorization (CU) under Section 304 of the City Planning Code for a planned unit development (PUD). The CU would cover substitution of the proposed courtyard for the 25% rear yard requirement in RC-3 districts /1/ and aggregation of parking for the four lots that make up the site. Both residential and commercial parking spaces would be provided at a rate specified in Section 151 (Table 4) of the City Planning Code. A variance would be sought for provision of a combination of on-street loading spaces and off-street loading spaces for vans and panel trucks instead of the one full-size off-street loading dock that is required by the City Planning Code.

The towers and Chestnut Street buildings were recommended for landmark designation by the Landmarks Preservation Advisory Board (Resolution No. 204, January 7, 1981). The Planning Commission approved designation of the two towers only (Resolution No. 8865, March 5, 1981). Designation of the towers was sustained by the Board of Supervisor's Planning and Housing Development Committee (Ordinance No. 292-81, File No. 90-81-4, June 1, 1981) and received the Mayor's approval on June 5, 1981 (effective July 5, 1981). As a result of these resolutions, the sponsor would have to obtain a Certificate of Appropriateness for modifications to the towers.

/1/ Section 134, Article 1.2 of the City Planning Code.

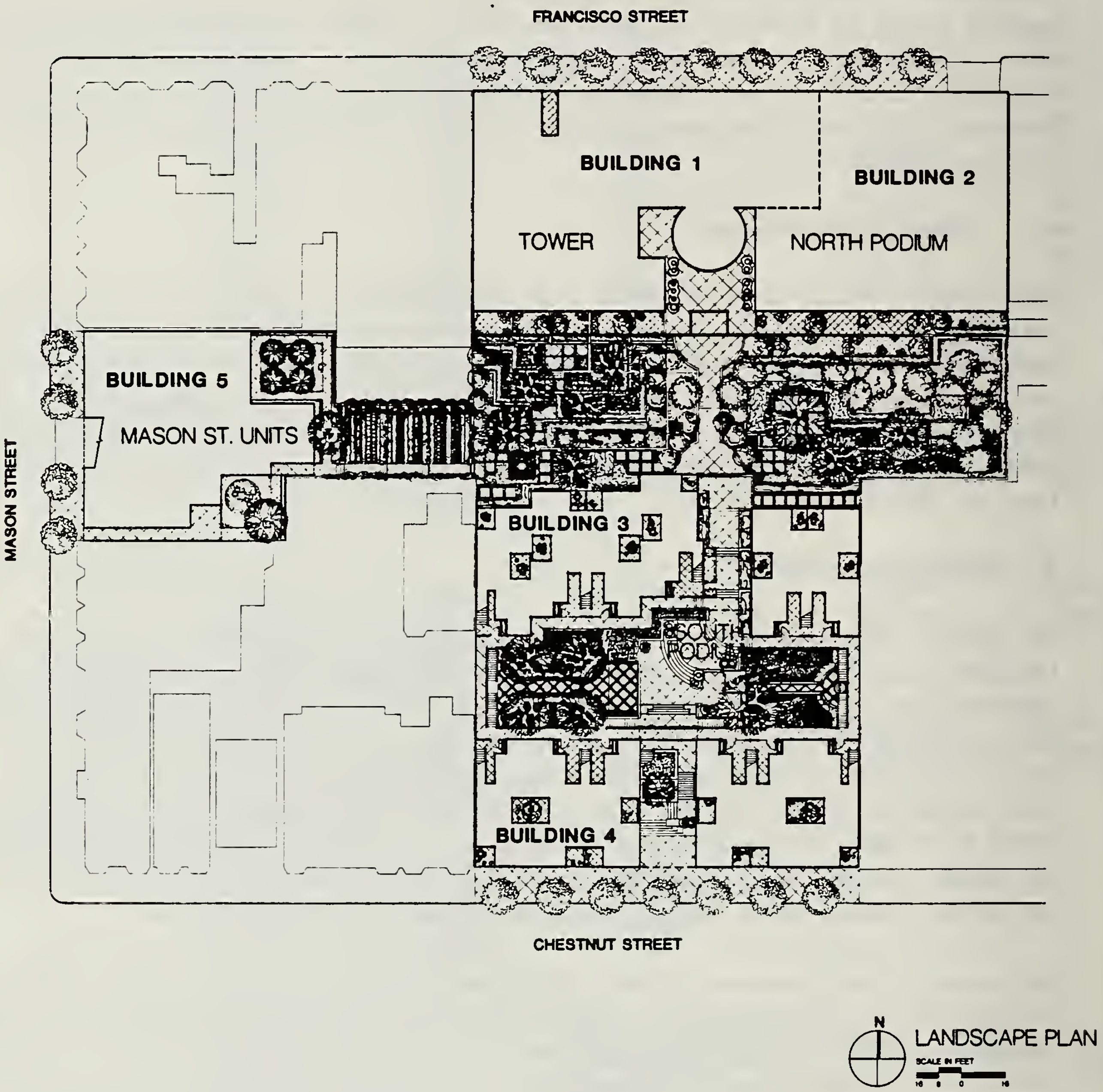


Figure 14

LANDSCAPE PLAN

Source: Backen, Arrigoni & Ross

III. ENVIRONMENTAL SETTING

A. LAND USE AND PLANNING CONSIDERATIONS

Land Use: The project site is located five blocks northwest of Coit Tower and one block south of Bay Street. The predominant land uses in the neighborhood are residential and commercial, but institutional facilites include Francisco Junior High School, the Telegraph Hill Neighborhood Association and the North Beach Public Library. Commercial facilities in the area include North Point Shopping Center, North Point Theatre, Pier 39 and other shops and restaurants. Figure 15 (p. 22) shows land uses near the site.

The site is in an RC-3 zone (Residential-Commercial Combined, Medium Density). As an industrial use, the Bauer-Schweitzer malting mill does not conform to the land uses permitted in this zone. Adjacent to the northern property line of the site is a railroad track spur for boxcars that transported barley to the mill. The 92- and 78-foot towers and 70-foot storage silos are the tallest structures in the neighborhood, as most of the other nearby buildings are two to four stories high.

In addition to the Bauer-Schweitzer mill and office building, the site block (A.B. 52) contains wood frame residential structures, offices on Chestnut east of the site, a television/film studio on Powell between Chestnut and Francisco, and a restaurant on Francisco west of the site. The block directly north of the site across Francisco (A.B. 41) contains a credit union on the northeast corner of Francisco and Mason, professional offices on Vandewater Street, restaurants on the northwest corner of Francisco and Powell, and residential units. Proposed residential projects in the area include Telegraph Hill Condominiums (20 units) at Francisco and Grant Streets, Vandewater Street projects (64 units) just north of the site across Francisco Street, and the Chestnut Court Project (20 units) at Columbus and Chestnut Street.

To the northeast of the site (A.B. 40) is the North Point Theater, a parking lot, commercial facilities and multi-unit residential buildings. Most of the commercial uses in this area are on Bay Street, a major thoroughfare connecting The Embarcadero with Fort Mason and the Marina district. To the northwest of the site (A.B. 42) is the 251-unit North Beach Public Housing project, which extends across Taylor Stree to A.B. 43. Immediately west of the site (A.B. 51) is a Safeway store with auto access from Chestnut, Mason and Taylor. This block is bisected by Water Street, which runs east and west, parallel to Francisco. On the northern portion of the block is the Chinese Christian Center and mixed residential and commercial uses. A restaurant fronts on Mason. Southwest of the site (A.B. 65) are more residential buildings. This block fronts on Columbus Avenue, which has primarily commercial uses. South of the site (A.B. 64) is the Telegraph Hill Neighborhood Association which has a clubhouse and

1 Fisherman's Wharf
2 Historic Ship Balclutha
3 Pier 39
4 Northpoint Shopping Center
5 North Beach Public Housing
6 Northpoint Theater
7 Francisco Junior High School
8 Telegraph Hill Neighborhood Association
9 North Beach Public Library
10 San Francisco Bay Club
11 North Beach Playground
12 Coit Tower
13 Safeway

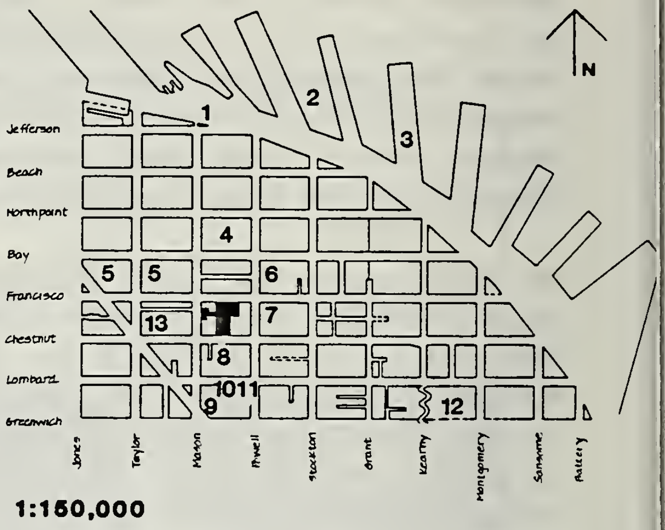


Figure 15

LAND USE MAP

Source: Planning Analysis & Development

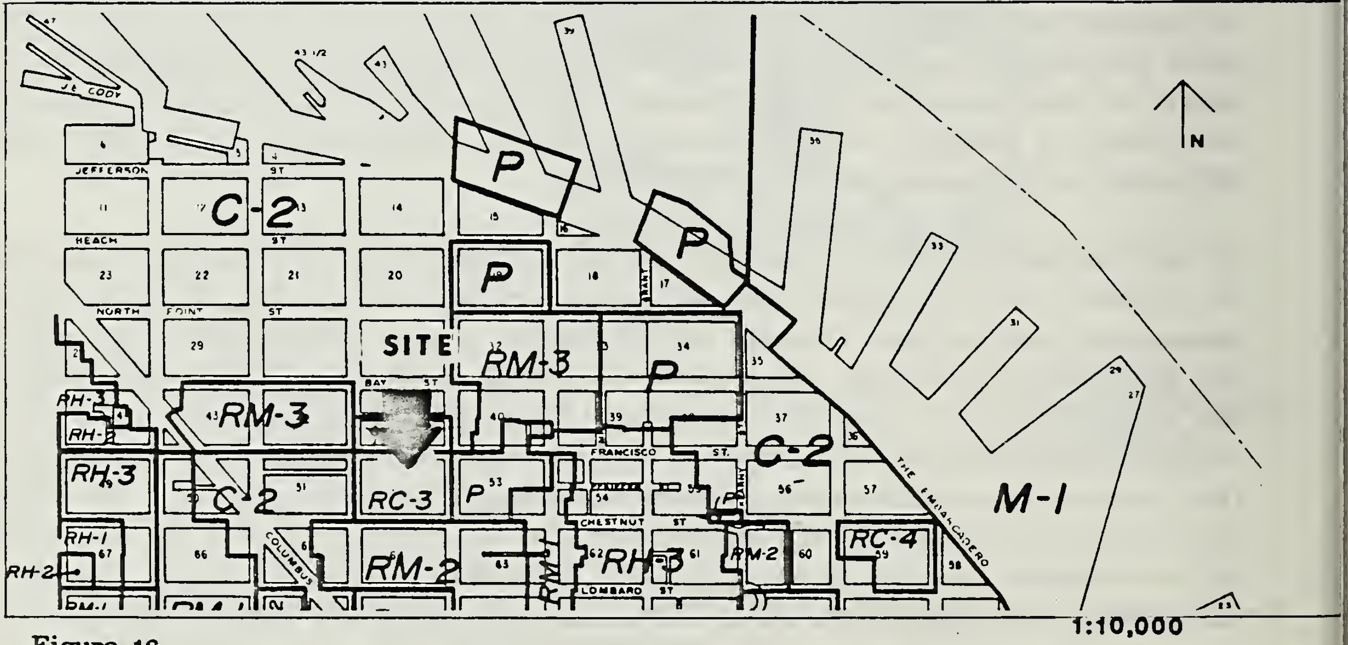


Figure 16

ZONING MAP

Source: San Francisco Department of City Planning open space used by daycare children, elderly clientele and other neighborhood residents. Residential uses predominate in this block with supporting commercial at the corner of Francisco and Mason and at Lombard and Mason.

Southeast of the site (A.B. 63) are residential buildings and a convenience store at the corner of Lombard and Powell. To the east of the site is the Francisco Junior High School, which takes up most of A.B. 53. The eastern part of this block has residential buildings fronting on Stockton and Chestnut.

Zoning: The site is zoned RC-3, which allows combined residential and commercial uses at medium density. Figure 16 (p. 22) shows zoning for the area. The floor area ratio for offices is 3.6 to 1 and the allowable residential density is one unit per 400 sq. ft. of lot area. The characteristics of RC-3 districts are given in Article 2, Section 206.3 of the Planning Code, /1/ which states:

> These districts provide for a mixture of medium-density dwellings similar to those in RM-3 with supporing commercial. The commercial uses are those permitted in C-2 districts, located in or below the ground story in most instances, and excluding automobile-oriented establishments. Open spaces are required for dwellings in the same manner as in RM-3 districts, except that rear yards need not be at ground level and front setbacks are not required.

Relevant characteristics of RM-3 districts are given in the same section of the code which states:

> These districts . . . are predominantly devoted to apartment buildings of six, eight, ten or more units. Most of these districts are close to downtown and have been developed in this manner for some time . . . Many buildings exceed 40 feet in height, and in some areas additional buildings over that height may be accommodated without disruption of the district character. . . Open spaces are smaller, but decks and balconies are used to advantage for many units. Supporting non-residential uses are frequently found in these areas.

The site could be developed with about 189,000 sq. ft. of commercial if the 3.6 FAR were fully utilized. In addition, up to 131 dwelling units could be built. (See Alternative F, p. 117). As a planned unit development (PUD), the site could have one dwelling unit less than the amount that would be allowed by the next highest density, in this case RC-4 which would allow 262 units or one unit per 200 sq. ft. of lot area. (See Section 304(c)4 of the Planning Code). Therefore the site could have up to 261 units with Conditional Use authorization for a PUD under Sections 303 and 304 of the Planning Code.

Residential properties in RC-3 zones require one parking space per dwelling and commercial projects require one parking space for every 500 sq. ft. of occupied floor area where the occupied floor area exceeds 5,000 sq. ft. Additional spaces up to 150% of those permitted would be classified an accessory use according to Section 204.5 of the City Planning Code, and would not require a Conditional Use permit.

The Bauer-Schweitzer malting mill is a non-conforming industrial use in a residential and commercial zone. (See Section 180 of the City Planning Code). The proposed mixed development would bring use of the site into conformance with the land use provisions of the City Planning Code. The two towers and the silo are non-complying structures, as they exceed the 40-foot height limit for the district. These buildings could remain on the site under the proposed use change, provided they are not enlarged or altered in a manner that would increase their non-compliance (Section 181, City Planning Code). For example, no balconies or other building features could be added to the exterior of the towers above 40 feet. New structures would have to conform to the 40-foot height limit and zoning provisions for RC-3 districts.

Lot Coverage: RC-3 districts require a rear yard at the lowest story occupied by dwellings, and at each succeeding story (Section 134a, City Planning Code). The minimum rear yard depth must be 25% of the total depth of the lot, and no less than 15 feet. With a PUD, the configuration of the rear yard may vary.

In addition to the rear yard requirement, Section 135 of the City Planning Code requires that 60 sq. ft. of private usable open space be provided for each dwelling unit. Common open space may be substituted for private at the rate of 1.33 sq. ft. common to private open space. Thus, if a unit had no private open space, about 80 sq. ft. of common open space per unit would be required.

Planned Unit Development: The Planning Code allows PUD designation for projects that meet certain design criteria. The objectives of PUD projects are given in Section 304(a):

> The procedures for planned unit development are intended for projects on sites of considerable size, developed as integrated units and designed to produce an environment of stable and desirable character which will benefit the occupants, the neighborhood and the City as a whole. In certain cases of outstanding overall design, complementary to the design and values of the surrounding area, such a project may merit a well-reasoned modification of certain provisions contained elsewhere in the Code.

III. ENVIRONMENTAL SETTING

PUD Conditional Use authorization may be granted when: /1/

1. the tract of land is under one ownership;

2. the tract is not less than 1/2 acre;

3. adequate off-street parking is provided;

4. dwelling unit density is limited to less than the density that would be allowed by Article 2 of the Code.

5. the project does not deviate, except in minor ways, from the provisions for height measurement in Sections 260 and 261 of the Planning Code.

/1/ This and the following section citations refer to the City Planning Code, Part II, Chapter II of the San Francisco Municipal Code, 1979 Edition.

/2/ Sections 304(b) and 304(d) of the City Planning Code.

B. HISTORIC RESOURCES

Existing Conditions: The Bauer-Schweitzer Malting Company is the last malting operation in North Beach and one of two such remaining operations within the United States. In recognition of the historic nature of the site, proceedings to designate the site as a landmark were initiated in January, 1981. The Landmarks Preservation Advisory Board recommended the two towers and the buildings on Chestnut Street for landmark status. In March, 1981, the Planning Commission voted to designate only the two towers. This decision was subsequently sustained by the Board of Supervisors and received the Mayor's approval on June 5, 1981. Except for minor alterations, the buildings remain just as they were reconstructed following the 1906 earthquake and fire /1/. Consequently, the existing complex of buildings is a visual landmark which reflects the character of early North Beach industry.

Finishes and elements inside the brewery of possible historic interest are base-relief, iron oven doors and antique equipment including a large scale with fluted armatures and 18 large, red-enameled malting drums.

Previous Conditions: Historically, the site and surrounding area were occupied by brewers and maltsters since the Lyon Brewery occupied the 500 block of Chestnut Street in 1867. As residential and commercial land uses supplanted industry, one brewery after another was demolished. The Quarterly Trades Guide and Merchant's Directory for San Francisco listed eleven brewers in North Beach in 1871. In 1906, the Empire Malt House was renovated for Bauer-Schweitzer with equipment based on French designs from the 1860's. Following renovation, the masonry building was almost completely destroyed in the 1906 earthquake and fire, and was subsequently reconstructed using reinforced concrete. /2/ Photographs taken prior to the 1906 renovation show that an 85-foot tall cupola topped Lyon's Brewery, and that the north side of Francisco Street was not yet brought up to grade by 1888. Just north of Francisco was the former location of Meigg's Wharf, while Lyon's Brewery sat atop the former site of Meigg's Sawmill. Figures 17 and 18 (pp. 27,28) depict details from 1852 and 1857 Coastal Survey Maps. The location of Meigg's Wharf is shown in Figure 18 (p. 28). As Figure 19 (p. 29) shows, the site of the sawmill is completely covered by the existing Bauer-Schweitzer Plant including a portion underneath the towers.

Henry Meiggs was a businessman and early promoter of North Beach, who arrived in San Francisco in 1819 and was elected to the City Council, which he influenced to build streets serving his properties. He bought and filled a number of water and shoreline lots, and in 1853 built the famous 2000-foot wharf bearing his name. Shortly after this, Meiggs built the sawmill which was used to plane and saw redwood brought from his Marin land holdings. /3/

Artifactual remains pre-dating Meiggs' building activities and the Gold Rush period, with which it coincided, are probably not present at the site. Cultural activity in San Francisco during the Spanish and Mexican periods centered around the Presidio and Mission Dolores, with occasional use of North Beach. Prior to landfilling, the Bay waters immediately north of the Bauer-Schweitzer site were no more than six feet deep, too shallow to provide anchorage for 18th century ocean-going vessels, so the probability of ship remains is remote. Similarly, there is no record of prehistoric sites along the northern waterfront, although it is possible Costanoan Indians may have inhabited the site block. /4/

/1/ Archeo-Tec, Inc., Archeological Resources at the Francisco Place Development, September 1980 (p. 21). A copy of the full report is on file in the Office of Environmental Review.

/2/ Landmarks Preservation Advisory Board, final Case Report for the Bauer-Schweitzer Malting Company, approved January 1, 1981.

/3/ Archeo-Tec, Inc., op.cit.

/4/ For a more detailed discussion of the likelihood of pre-Gold Rush remains on the site, please refer to Archeo-Tec, Inc., Archeological Resources at the Francisco Place Development on file with the Office of Environmental Review.

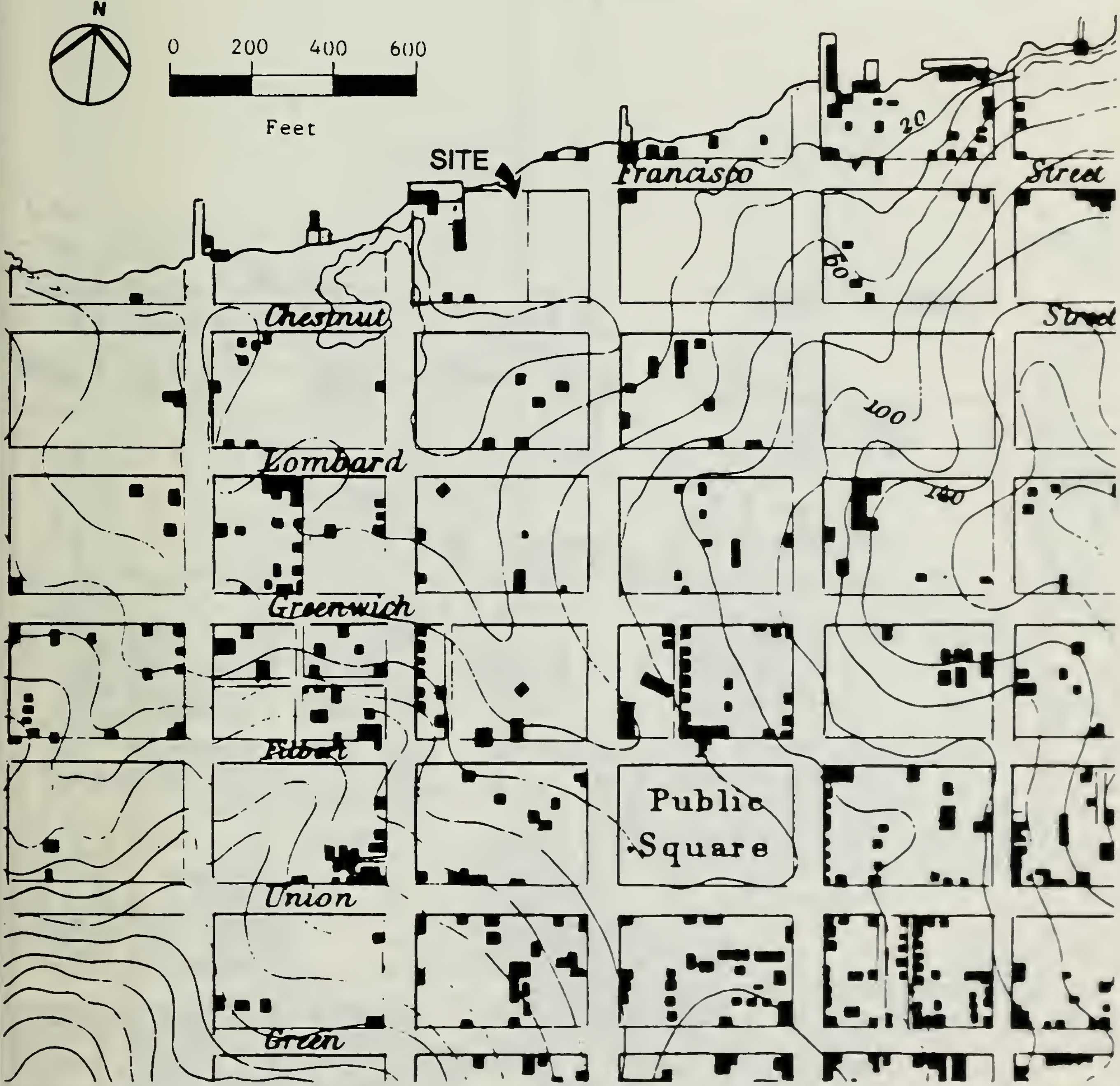


Figure 17
DETAIL FROM U.S. COAST SURVEY MAP, 1852
Source: Archeo-Tec, Inc.

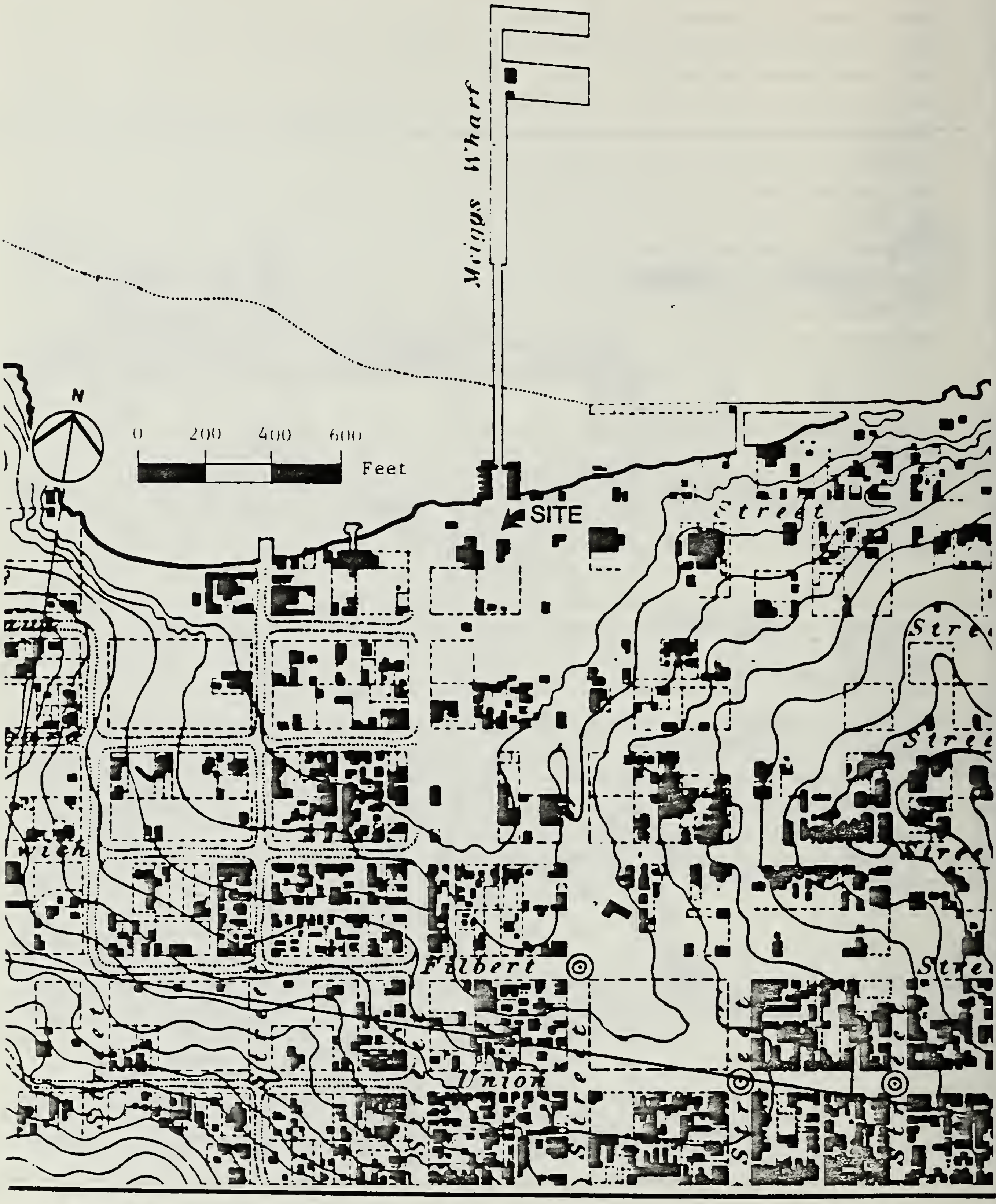


Figure 18
DETAIL FROM U.S. COAST SURVEY MAP, 1857
Source: Archeo-Tec, Inc.

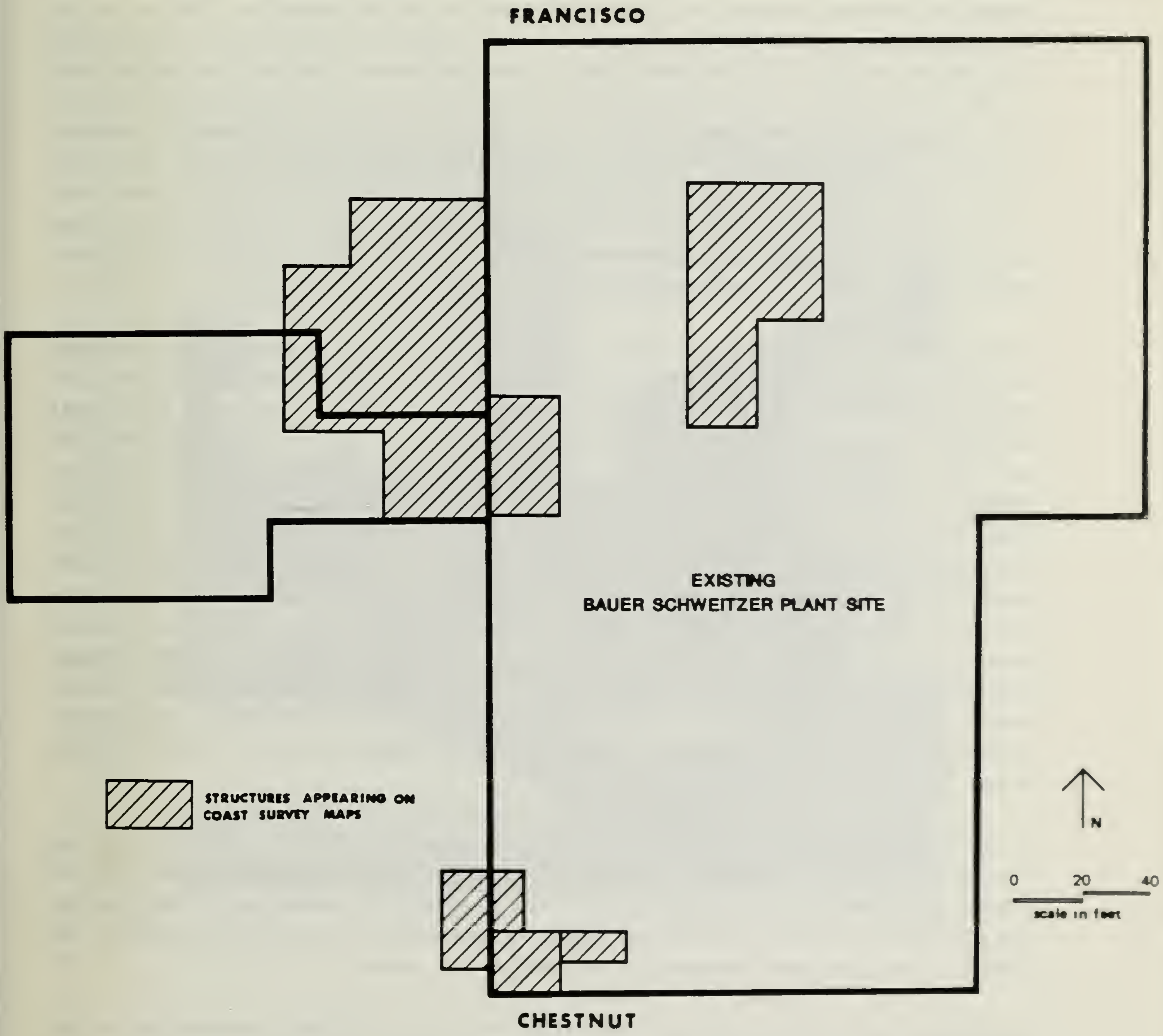

FRANCISCO
EXISTING
BAUER SCHWEITZER PLANT SITE
STRUCTURES APPEARING ON COAST SURVEY MAPS
N
0
20
40
scale in feet
CHESTNUT

Figure 19

LOCATION OF STRUCTURES APPEARING ON 1852 AND 1857 COAST SURVEY MAPS
Source: Archeo-Tec, Inc.

C. VISUAL QUALITY AND URBAN DESIGN

The visual quality of buildings on the site varies from industrial (towers) to agricultural (silos) to office/warehouse (Chestnut Street facade). The Francisco Street facade has little decoration or articulation. The silos are evocative images to some observers, as they suggest qualities of a vanishing life style or era. On the other hand, some residents consider the entire site to be an eyesore. The Chestnut Street facade has some decorative detail, including a rusticated base (where the lower portion of a structure is composed of rough hewn building material), a cornice and parapet wall, all of which are similar in style to the adjacent building to the east, which was also constructed for office/warehousing. The white, stucco-covered Victorian residence immediately west of the office/warehouse facade is similar in height, bulk, and material to the Chestnut Street facade.

The malting mill towers rise 92 and 78 feet above Francisco Street, and dominate the block between Mason and Powell (see Figure 20, p. 31). The towers are also visible from Mason Street between Francisco and Chestnut. Neither the towers nor the silos are visible from Chestnut between Powell and Mason except down the alley on Chestnut. Panoramic views of San Francisco Bay, Marin County, Alcatraz Island, Angel Island, Russian Hill, Telegraph Hill and Coit Tower are visible from the top of the towers. These structures were rebuilt in 1906, after the earthquake and fire, and were designed with massive 12-inch thick reinforced concrete walls to prevent collapse in another earthquake. As the towers were built for malt drying and fermentation, they contain few and irregularly spaced windows. The industrial facade is articulated with pilasters (which are columns that pop out from the wall), and parapets. Several pieces of mechanical equipment on the tower roofs add another eight to ten feet of height. The towers cast shadows on residences and commercial facilities on the north side of Francisco Street.

A railroad track spur terminates in front of the towers, and was used to bring raw materials to the factory. A boxcar is a relatively constant element of the visual environment and contrasts with the residential character of the rest of the blockface. Electric wires supported by armatures on the north facade of the towers accentuate the industrial features of the street.

The height and curved form of the silos contrast with the surrounding urban landscape which is characterized by four story, rectilinear buildings. The towers and silos as seen from higher elevations on Telegraph and Russian Hills are notable forms that stand out from the three and four story buildings that make up most of North Beach. Figure 21 (p. 32) shows the site as seen from the east on Telegraph Hill. The Chestnut Street buildings are not visible from this

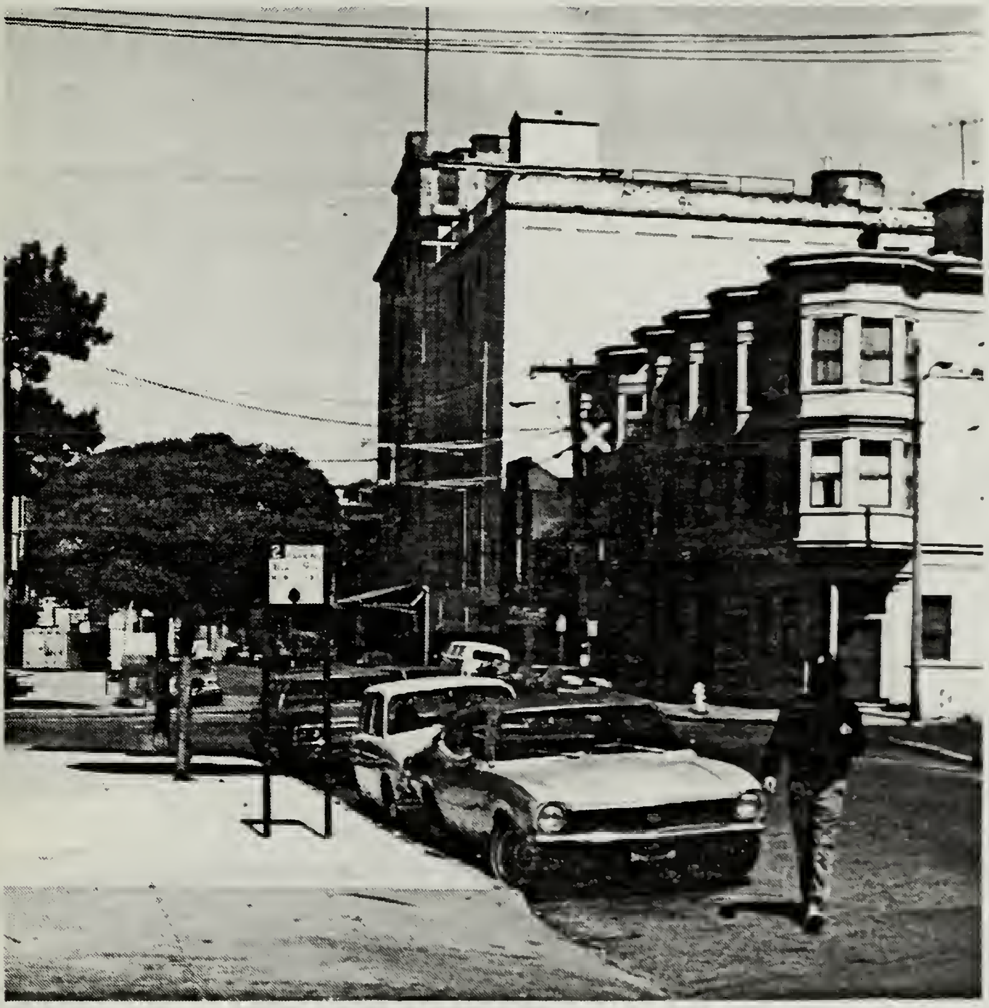


Figure 20
VIEW OF THE TOWERS FROM FRANCISCO STREET
Source: Planning Analysis and Development

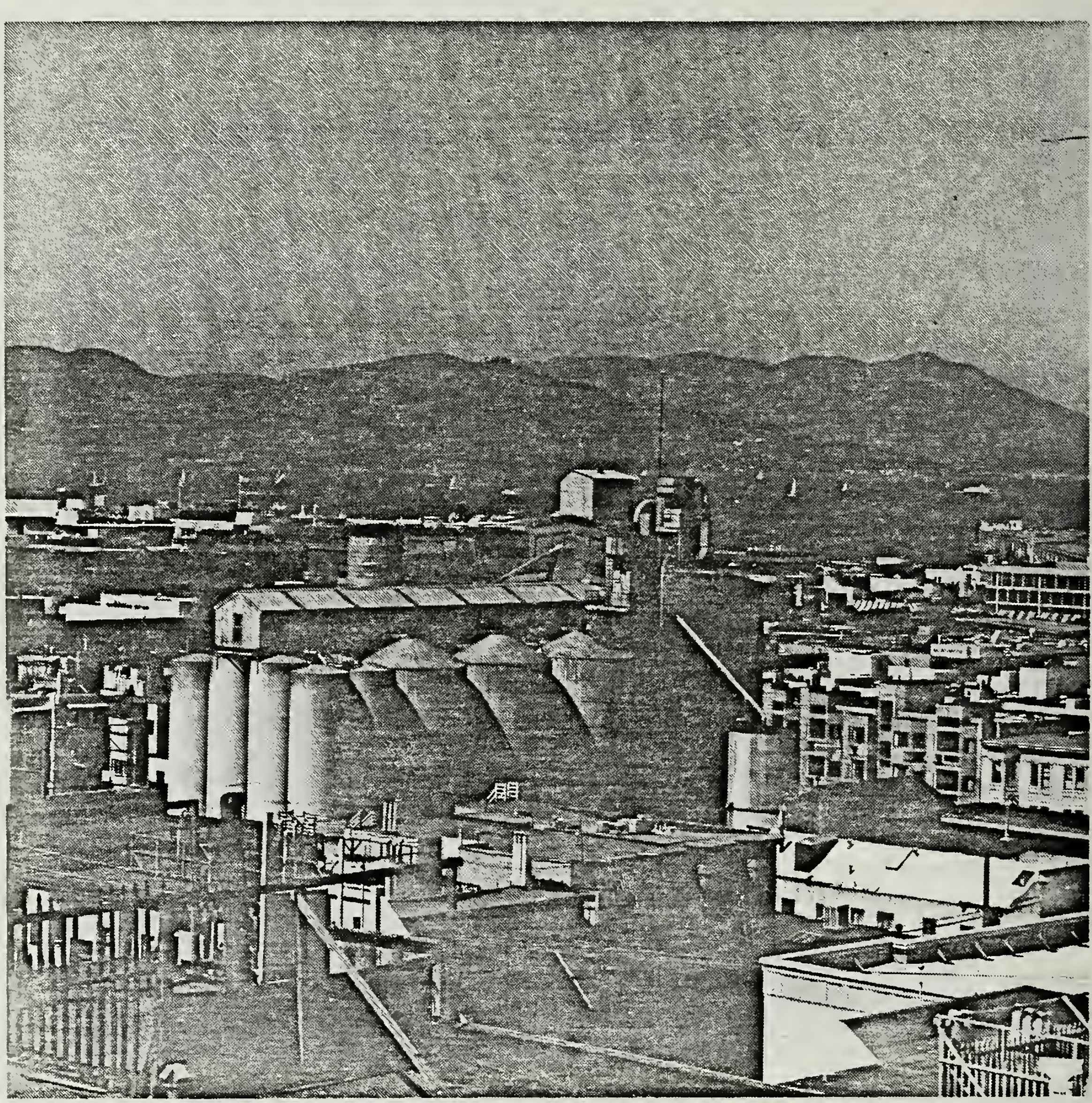


Figure 21
VIEW OF THE SITE FROM THE NORTHWEST FACE OF TELEGRAPH HILL
Source: Planning Analysis and Development

location. The towers and silos are not visible from points beyond Telegraph and Russian Hills. Figure 22 (p. 34) shows the silos as seen from the project parking lot on Mason. From Lombard Street, the silos and towers block views of the Golden Gate Bridge that would otherwise be visible for some residences.

The malting mill offices are in the two story buildings that front on Chestnut Street. A white stucco facade rises about 30 feet and features rustication, pilasters, cornices and a parapet. The south facade is a similar architectual style to the industrial building (now in commercial use) that abuts it to the east, and would not contrast with the white stucco Victorian residence that abuts it to the west. These structures are shown in Figure 23 (p. 34).

Two of the lots on Mason Street are presently used for parking, although the rear of lot 19 is fenced off and adjoins the El Tapatio Restaurant which is west of the site on Francisco. An empty boxcar occupies a portion of this lot. The third lot (18) has a wood frame residential building containing one unit.

The site block contains three architecturally significant structures according to the 1976 Architectural Inventory of the San Francisco Department of City Planning and the Junior League of San Francisco's map of the Historic Sites Project. All of the noted structures front on Francisco Street and include a nineteenth century residence on the northwest corner of the site block, the dark, wooden El Tapatio restaurant just west of the site, and a modern office building at the northeast corner of the site block. The 1976 Architectural Inventory rated structures on a scale of 0-5 in terms of architectural merit and urban design. It also established architectural groupings for mapping purposes. The ratings and architectural groupings of structures in the site vicinity are shown in Appendix C (p. 149).

D. TRANSPORTATION

The major traffic facilities in the site area include the Columbus Avenue and Bay Street thoroughfares. Nine MUNI lines pass within 3 1/2 blocks of the site, including the 59-Powell and Mason cable car. (See Figure 24, p. 35.) Golden Gate transit buses stop about two blocks from the site and provide access to the North Bay. Pedestrian traffic is generated by shops, the Francisco Junior High School, the Telegraph Hill Community Center and the North Beach Playground.

Traffic: The site is located within two blocks of two major thoroughfares, as designated by the Transportation Element of the Comprehensive Plan. /1/ Columbus Avenue provides access to the Financial District and freeways. Bay Street provides access to western parts of the City and to the North Bay.

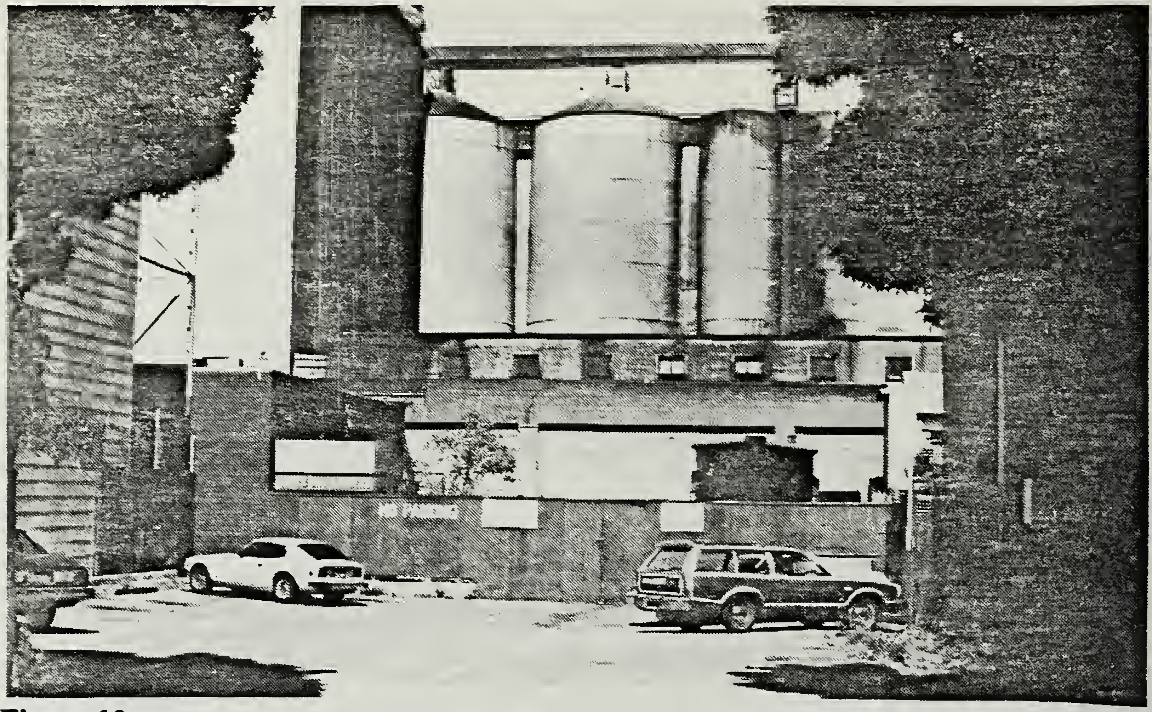


Figure 22
VIEW OF SILOS FROM MASON STREET
Source: Planning Analysis and Development

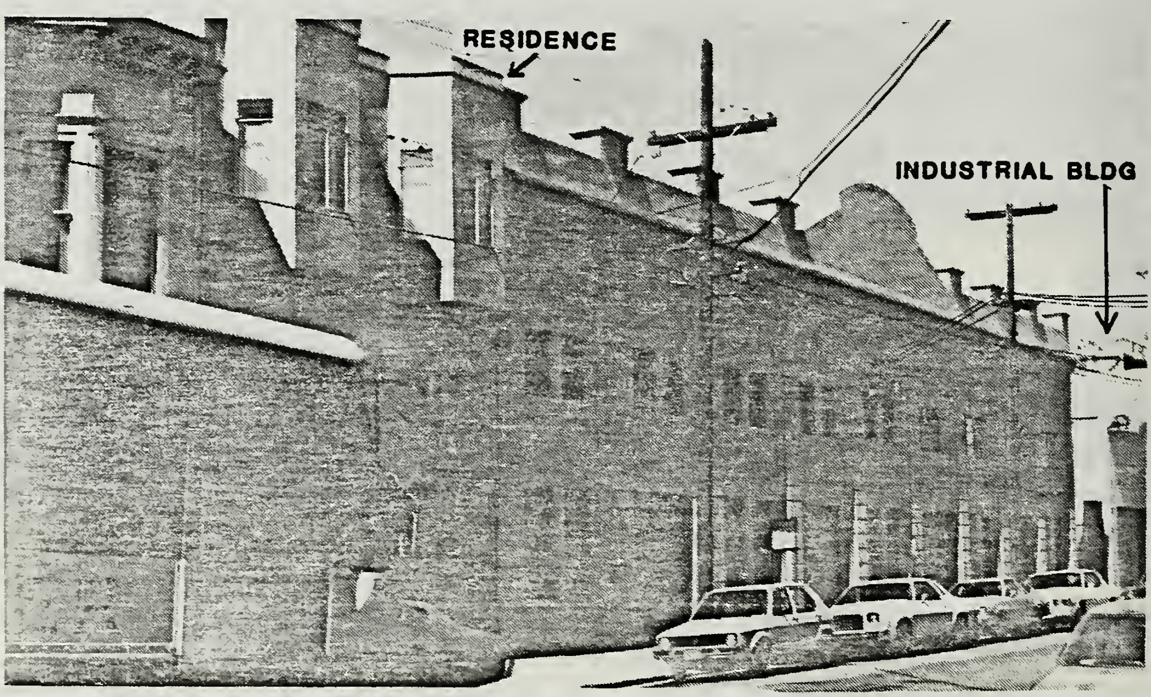


Figure 23
VIEW OF EXISTING CHESTNUT STREET FACADE
Source: Planning Analysis and Development

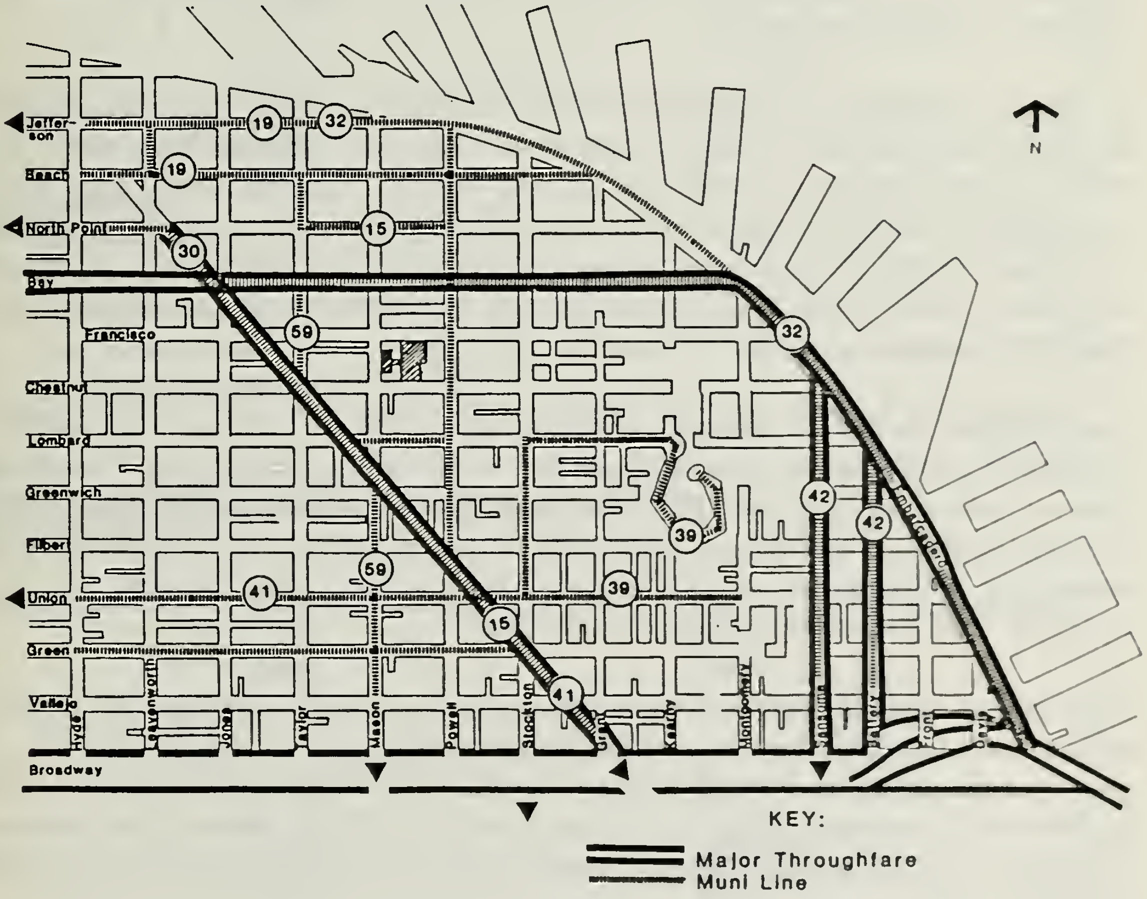


Figure 24
TRANSPORTATION NETWORK
Source: PRC Voorhees

Three of the four intersections surrounding the site are controlled by two-way signs. These are Francisco/Mason, Chestnut/Powell and Francisco/Powell. The fourth intersection, Chestnut/Mason, is a four-way stop. Figure 25 (p. 37) shows traffic service levels at these four intersections during the peak period of 4:30-5:30 PM. /2/ These volumes are expressed as levels of service, varying from little or no delay (level A) to short delays (level B). Service levels are defined in greater detail in Table B-1 (p. 137) of the Transportation Appendix of this report. Figure 26 (p. 37) shows the number of daily vehicular trips near the site. The highest daily volumes are on Mason (3,740) and Powell (3,840) north of Francisco. The lowest daily volumes are on Chestnut east (850) and west (1,350) of Powell.

Accident occurrence on the streets surrounding the site has been relatively low. No location in the area experienced more than two accidents per year in 1978 and 1979 /3/ nor was any on the City's list of high accident locations for 1980 /4/. In addition, less than 15% of the recorded accidents involved injuries. At no location within the area has the occurrence of high severity or pedestrian accidents been more than a quarter of the annual rates used by the City to identify problem accident locations. /5/

Pedestrian Traffic: Pedestrian flows at the Powell Street crosswalks and along Francisco and Chestnut peak between 3 - 4 PM, while pedestrian flows along Mason Street remain uniformly high throughout the late afternoon. Pedestrian traffic on Mason is more heterogeneous than other streets, and consists of students, commuters and others walking between North Beach, the Columbus Avenue transit corridor and locations north of the site.

Pedestrian service levels can be described in terms similar to those used for vehicular service levels. (See Appendix B, Table B-2, p. 138). Because pedestrians enjoy the right-of-way at all intersections, their flow can usually proceed uninterrupted by vehicular traffic. Thus pedestrian service levels remain at level A/B or better even during the peak 5-minutes of pedestrian traffic. /6/

Pedestrian flows are highest between 3:00 - 3:30 PM when students are dismissed from Francisco Junior High School. The students interfere with vehicular traffic flow and reduce auto service levels. The peak flow of pedestrian and vehicular traffic combined decreases vehicular service level by one to two grades, and deteriorates to level D (long vehicular traffic delays) at the Francisco westbound approach to Powell. During the peak hour of vehicular traffic (4:30 - 5:30 PM), pedestrians use 3-12% of the intersection approach capacity. Other intersection approaches are in the A range at this time except for the Francisco approaches to Mason and Powell and the Mason northbound approach to Francisco which operate at service level B. Figure 27 (p. 38) shows

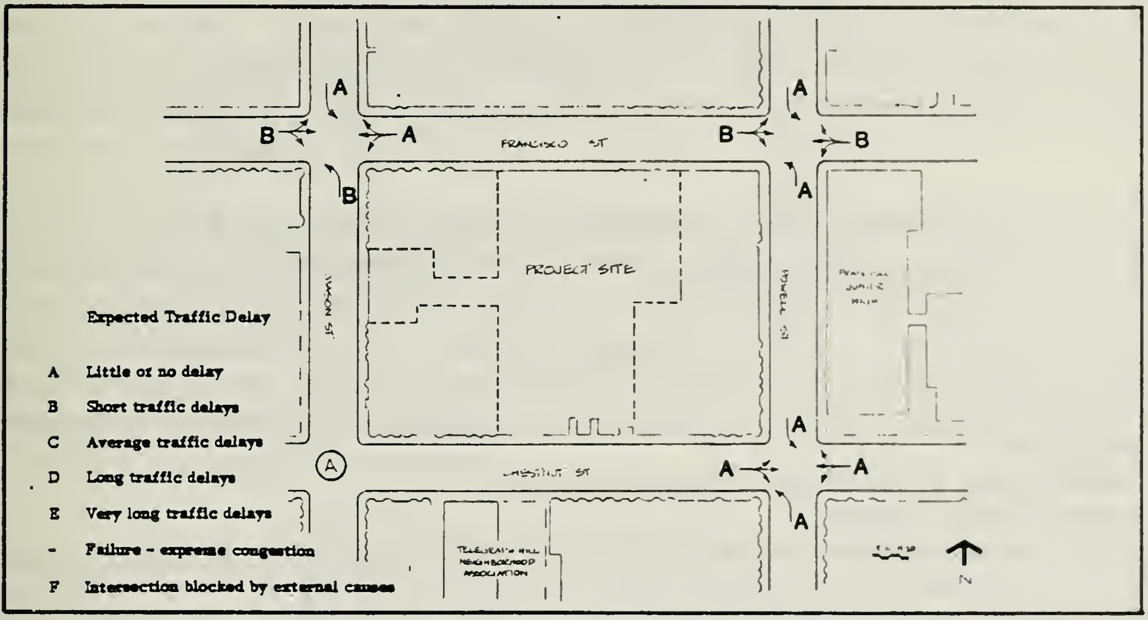


Figure 25
PEAK HOUR VEHICULAR SERVICE LEVELS (4:30-5:30)
Source: PRC Voorhees

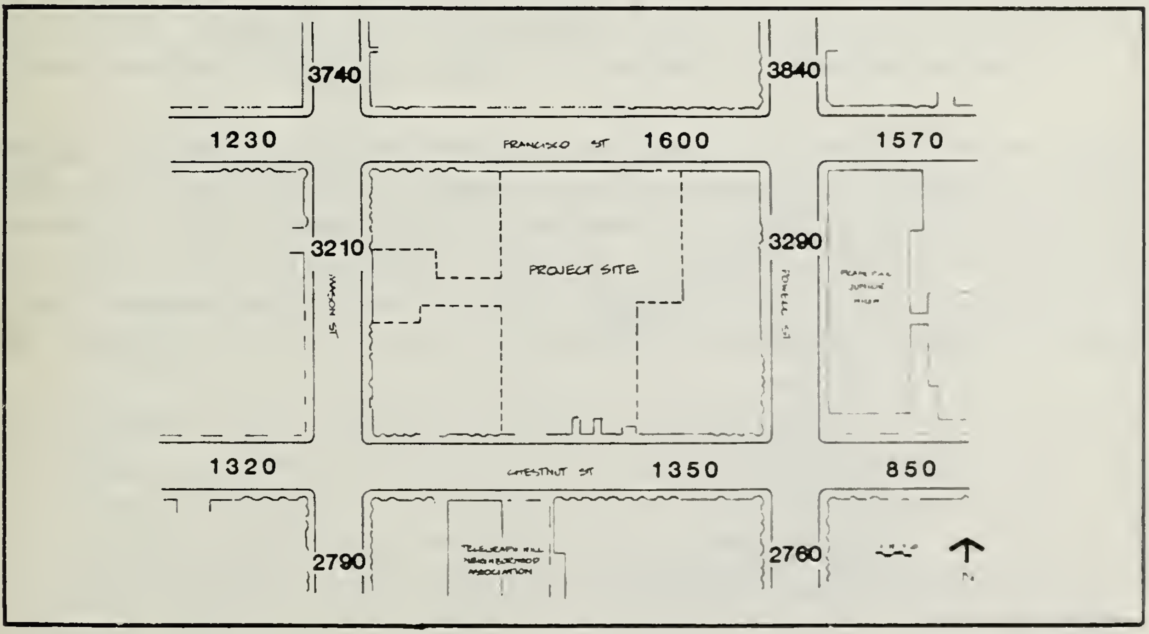


Figure 26
EXISTING DAILY TRAFFIC VOLUMES
Source: PRC Voorhees

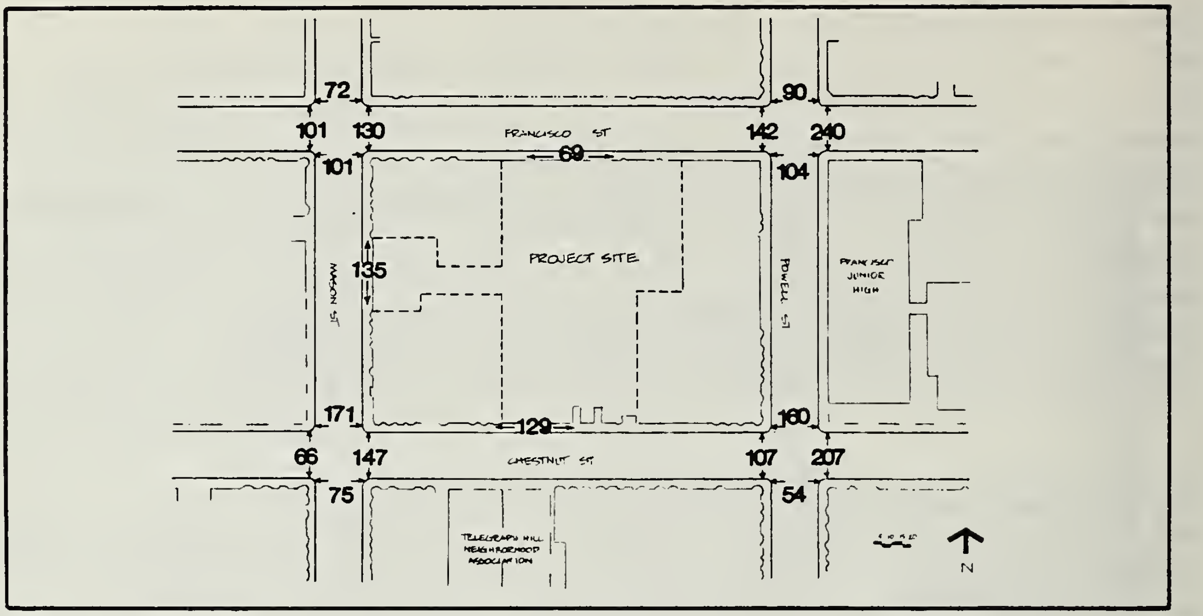
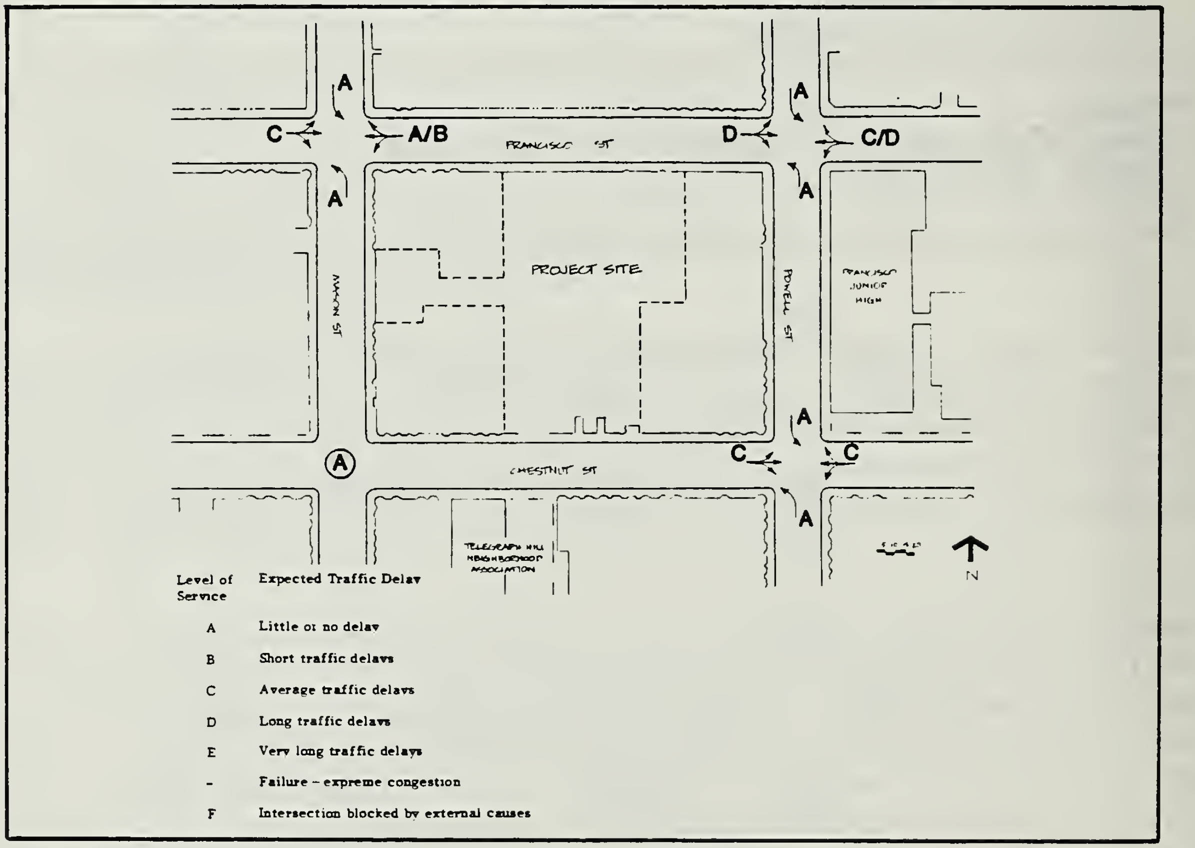


Figure 27
PEAK HOUR PEDESTRIAN FLOWS (3-4 PM)
Source: PRC Voorhees.



Level of Service	Expected Traffic Delay
A	Little or no delay
B	Short traffic delays
C	Average traffic delays
D	Long traffic delays
E	Very long traffic delays
-	Failure – expreme congestion
F	Intersection blocked by external causes

Figure 28
PEAK PERIOD COMBINED FLOW OF PEDESTRIANS AND VEHICLES (3-3:30 PM)
Source: PRC Voorhees

the peak hour pedestrian flows and Figure 28 (p. 38) shows service levels during the combined pedestrian vehicular peak period. Figure 29 (p. 40) shows pedestrian volumes during the peak traffic hour of 4:30-5:30 PM.

Parking: On-street parking in the site area is almost saturated both in daytime and evening periods. There are, however, between 180-260 off-street spaces available in pay garages and lots within about three blocks of the site. /7/ These pay spaces are available during peak demand periods, including weekday afternoons and evenings.

The site is located within a residential permit parking area which restricts long-term parking to vehicles with special "A" stickers between 8:00 AM and 9:00 PM, Monday through Saturday. "A" permits can be obtained by residents living in the area, allowing them to park for more than two hours. The "A" permit area ends about 1-1/2 blocks north of the site at Bay Street. Outside the "A" permit area there are a number of nonpermit long and short-term parking spaces on-street as well as in public garages.

A parking survey was conducted during mid-afternoon and evening hours /8/ over the area illustrated in Figure 30 (p. 40). The results are summarized in Table 2 (p. 41) which indicates that there are a total of 270 A-permit spaces within 1-1/2 blocks of the site. Of these, 259 were occupied between 7-8 PM when people return from work, and 15 vehicles were parked illegally in bus stops, red zones and driveways. Within 2 1/2 blocks of the site there are 761 "A" permit spaces, including the 270 within 1 1/2 blocks. Of these, 718 were filled between 7-8 PM. Overall, more than 90% of the "A" permit and unrestricted spaces were occupied during both the mid-afternoon and evening surveys.

The evening (7-8 PM) survey included 133 non-permit short-term spaces within 2 1/2 blocks of which 105 were occupied, and 50 unrestricted spaces, of which 46 were occupied. There were 61 vehicles parked illegally in red zones and 60 parked in white and yellow zones. During the evening survey, 43 "A" permit spaces were vacant and 32 unrestricted and short term spaces were vacant. Stricter enforcement of red zones could exhaust the available non-permit spaces.

The mid-afternoon survey reported similar utilization rates. The locations of unused parking spaces varied by the time of day, although certain patterns were evident. In both afternoon and evening surveys, the majority of nearby vacant spaces were located on the block bounded by Mason, Francisco, Chestnut and Taylor. In the evening, spaces also became available in the area north of Bay Street when the meters and time-limits on the spaces were no longer in effect.

The greatest sources of unused weekday and evening parking in the area are the North-Point and Ramada Inn garages located about 1-1/2 and 2-1/2 blocks from the

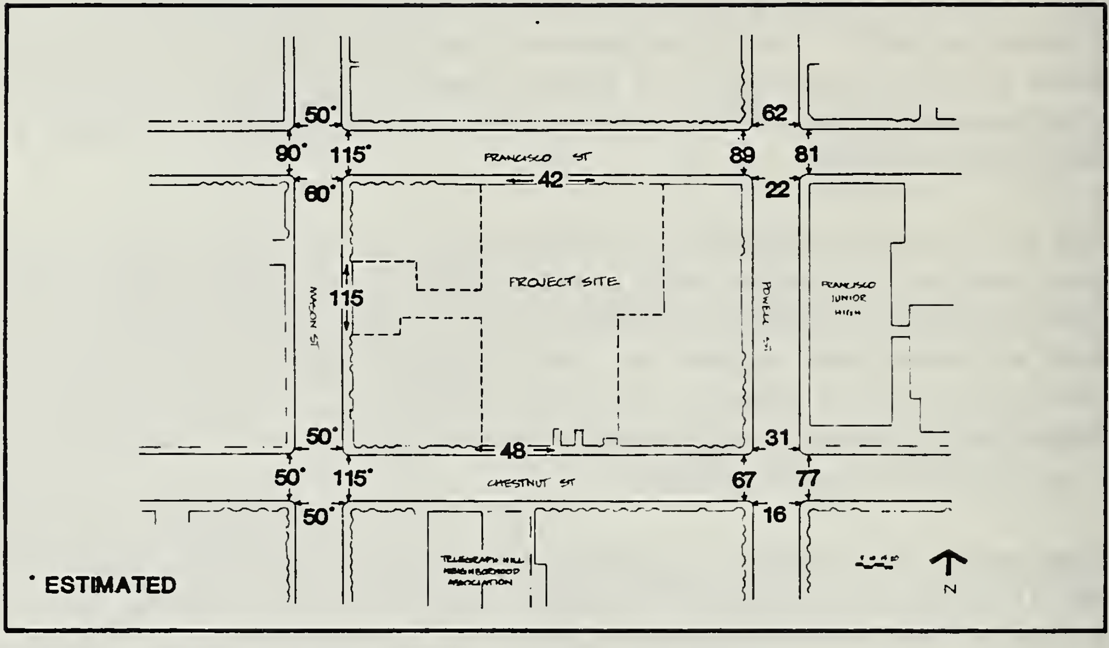


Figure 29
PEDESTRIAN VOLUMES DURING PEAK TRAFFIC HOUR (4:30–5:30 PM)
Source: PRC Voorhees

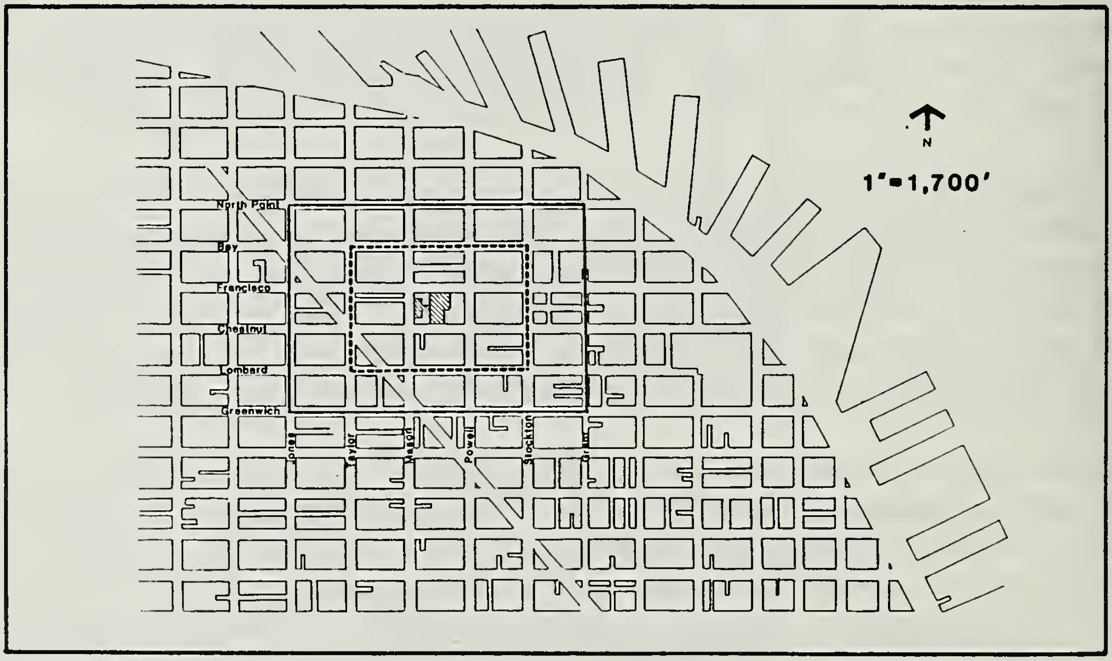


Figure 30
PARKING SURVEY AREA
Source: PRC Voorhees

- - - 1 1/2 blocks from the site
——— 2 1/2 blocks from the site
Site indicated by hatched line

Table 2

PARKING SURVEY /1/

	Within 1-1/2 Blocks			Within 2-1/2 Blocks	
Parking Type	Spaces	Occupied in Afternoon	Occupied in Evening	Spaces	Occupied in Evening
Short Term					
Green Curb	7	4	3	18	15
2 hour limit				57	51
1 hour limit				41	29
1 hour meter				17	10
	7	4	3	133	105
A-Permit	270	257	259	761	718
Unrestricted	0	0	0	50	46
Loading Areas					
White Curb	20	18	13	52	28
Yellow Curb	18	9	15	47	32
	38	27	28	99	60
Illegal	-	17	15	-	61
Off-Street Lot	18	17	9	18	9

/1/ Evening parking survey conducted between 7 and 8 PM on Thursday, May 22, 1980; afternoon surveys conducted between 2 and 3 PM on Tuesday, September 30, 1980; and from 3 to 4 PM on Wednesday, May 28, 1980.

SOURCE: PRC Voorhees

site, respectively. The 260-space Northpoint garage is generally filled on weekends, but 80 spaces were vacant during the weekday afternoon survey. The evening vacancy rate is generally no less than 160 spaces. The Ramada garage contains about 160 spaces of which 100 are normally vacant on weekday afternoons and evenings. /9/ The parking survey also found that there were nine vacant spaces in the 18-space pay lot on Powell at Francisco, about 1/2 block from the site.

Transit: Table 3 (p. 43) depicts the nine MUNI lines which stop within 2000 feet of the site along with their destinations. All lines connect the site to the Financial District and regional transit carriers, except the 39 which connects the site to Coit Tower and North Beach. The 30, 32 and 42 provide non-transfer service to the Southern Pacific Railroad depot at 4th and Townsend. Table 3 also gives the current ridership and capacity on each line in the peak direction in the peak hour, indicating that none operate at more than 91% capacity.

MUNI is implementing its 1981-1986 Five-Year Plan, which calls for several route changes in the project area. /10/ The changes, summarized in Table 4 (p. 44), include termination of lines 19 and 30 from the area and conversion of the 32 motor coach to a streetcar line, the E-Embarcadero. One line will be added in the area, the 20 trolley coach, which will replace services eliminated by rerouting or removing the 19 and 30. Table 4 also gives the scheduled peak-hour MUNI capacity serving the project area in 1981 and the peak-hour capacity called for under the Five-Year-Plan, indicating that a 20% increase in overall service-capacity is planned.

/1/ City and County of San Francisco, Department of City Planning, Transportation Element, adopted by Resolution (6834), April 27, 1972.

/2/ For a complete discussion of existing traffic conditions and expected impacts due to the project, please refer to PRC Voorhees, Francisco Place Project Report on Transportation Impacts, February 2, 1981, September, 1981 and November, 1981, on file with the Office of Environmental Review, 45 Hyde Street, Room 319.

/3/ Traffic Engineering Division, Department of Public Works, computer tabulation of traffic accidents for the calendar years 1978 and 1979.

/4/ Traffic Engineering Division, Department of Public Works, Intersection Traffic Accidents Annual Report-January through December 1980, March 5, 1981.

Table 3

MUNI SERVICE IN PROJECT AREA

			1980 Peak-Hour Volume & Capacity /2/		
Line /1/	Direction of travel from site	Destinations	Capacity (incl. standees)	Ridership Volume	Volume/ Capacity
15	South	Downtown, City College	975	887	0.91
19	South	Civic Ctr	825	528	0.64
30	West	Marina	1425	1067	0.75
	South	Downtown, SP Depot			
32	South	Downtown, SP Depot	1050	416	0.40
	West	Aquatic Park			
39	East	Telegraph Hill	n.d./3/	n.d.	n.d.
	South	North Beach			
41	West	Marina	n.d.	n.d.	n.d.
	South	Downtown, Mission			
42	South	Downtown, SP Depot	300	230	0.77
59	South	Downtown	n.d.	n.d.	n.d.

/1/ Lines stopping within 2,000 feet of proposed project, based on MUNI Interim Route Map, June 1981, reflecting Phase 1B alignments.

/2/ Passenger count and capacity data provided by Department of City Planning in Attachment to Guidelines for Environmental Impact Review, Transportation Impacts, October 1980.

/3/ n.d. indicates data not available.

SOURCE: PRC Voorhees

Table 4

MUNI SERVICE CHANGES IN PROJECT AREA UNDER FIVE-YEAR PLAN

	Direction of Travel	Destinations	Scheduled Peak Hour Capacity /2/	
Line/1/	from Site	Served	1977-79	Five-Year Plan
15	South	Downtown, City College	1080	2160
19	South	Civic Center, SP Depot	540	0 /3/
30	West	Marina	1440	0 /3/
	South	Downtown, SP Depot	1440	0 /3/
32	South	Downtown, SP Depot	720	960 /4/
	West	Aquatic Park	720	960 /4/
39	East	Telegraph Hill	216	216
	South	North Beach	216	0 /3/
41	West	Marina	1080	1440
	South	Downtown, Mission	1080	1440
42	South	Downtown, Bay View	360	864
59	South	Downtown	600	420
Added				
20	West	Fort Mason	-	1440
	South	Downtown, Bernal Heights	-	1440
			9,492	11,340

/1/ Lines stopping within 2,000 feet of proposed project.

/2/ Muni Five-Year Plan 1981-1986, May 15, 1981. Service frequencies from pp. 2- through 2-67; capacities including 50% standees are 72 per trolley and motor coach, per cable car, and 120 on the E-line (line 32).

/3/ Line discontinued or removed from area.

/4/ Conversion to "E" street car service.

SOURCE: PRC Voorhees

/5/ Traffic Engineering Division, Department of Public Works, Accident Problem Identification Program, Office of Traffic Safety Project No. 097805, May, 1980.

/6/ The peak five-minute flow was 80 pedestrians recorded in the Powell Street crosswalk on the north-side of Chestnut between 3:05 and 3:10 P.M. This translates to two pedestrians/foot/minute in the eight-foot crosswalk.

/7/ This does not include the parking area on the project site, lot 19, which is leased and not available to neighborhood residents.

/8/ Parking survey conducted by PRC Voorhees, 7-8 P.M. on May 22, 1980; 3-4 P.M. on May 28, 1980; and 2-3 P.M. on September 30, 1980.

/9/ Conversations with the garage operators, May 26, 1980.

/10/ San Francisco Municipal Railway, Five-Year-Plan 1981-1986, May 15, 1981.

E. AIR QUALITY

The Bay Area Air Basin is a non-attainment area for ozone and carbon monoxide, and San Francisco is a non-attainment area for particulates. The standards for these pollutants are expected to continue to be exceeded in the near future. A regional Air Quality Plan was recently adopted by the Association of Bay Area Governments (ABAG) which establishes control strategies to attain and maintain air quality standards by 1982 and 1987. /1/

The Bay Area Air Quality Management District operated an air quality monitoring station at 939 Ellis Street, about 1.5 miles from the site. In 1980, this station was moved to 900 - 23rd Street, about four miles from the site. A four-year summary of air quality measured at these stations appears in Table 5 (p. 46). In 1979 there was a total of two exceedences of the 8-hour carbon monoxide standard of 9 ppm and one exceedence of the particulate standard of 100 micrograms per cubic meters. In 1980, there were no exceedences of the carbon monoxide standard and six exceedences of the particulate standard.

/1/ Association of Bay Area Governments, Bay Area Air Quality Maintenance District, and Metropolitan Transportation Commission, 1979 Bay Area Air Quality Plan, January, 1979.

Table 5

SAN FRANCISCO AIR POLLUTANT SUMMARY, 1977 - 1980

STATION: 939 Ellis Street, San Francisco; 900 - 23rd Street (1980)*

POLLUTANT	STANDARD	1977	1978	1979	1980
Ozone (O_3) (Oxidant)					
1-hour concentration(ppm/a/):					
Highest hourly average	(0.08) 0.12/b/, c/	0.05	0.11	0.08	0.09
Number of standard excesses		(0) 0	(4) 0	0	0
Expected Annual Excess/c/		0.3	0.3	0.0	0.0
Carbon monoxide (CO)					
1-hour concentration (ppm):					
Highest hourly average	35/b/	16	17	20	-
Number of standard excesses		0	0	0	0
8-hour concentration (ppm):					
Higest 8-hour average	9/b/	8.9	9.4	13.8	7.5
Number of standard excesses		0	1	2	0
Nitrogen dioxide (NO_2)					
1-hour concentration (ppm):					
Highest hourly average	0.25/d/	0.21	0.30	0.16	0.17
Number of standard excesses		0	4	0	0
Sulfur dioxide (SO_2)					
24-hour concentration (ppm):					
Highest 24-hour average	0.05/d/	0.035	0.024	0.034	0.018
Number of standard excesses/e/,f/		0	0	0	0
Total suspended particulate (TSP)					
24-hour concentration (ug/m^3/g/):					
Highest 24-hour average	100/d/	105	128	117	-
Number of standard excesses/f/		1	1	1	6
Annual concentration (ug/m^3):					
Annual Geometric Mean	60/d/	41	42	42	52
Annual standard excess		No	No	No	-

/*/ Monitoring station was moved to 23rd Street location in 1980.

/a/ ppm: parts per million.

/b/ National standard, not to be exceeded more than once per year (except for annual standards which are not to be exceeded).

/c/ The national ozone standard was revised from 0.08 ppm to 0.12 ppm in January 1979. The number of excesses shown in parentheses is of the old 0.08 ppm standard in effect at the time. Expected Annual Excess is a three-year average of annual excesses of the new 0.12 ppm standard.

/d/ California standard, not to be equalled or exceeded.

/e/ The sulfur dioxide standard is considered to be exceeded only if there is a concurrent excess of the state ozone or suspended particulate standards at the same station. Otherwise, the national standard of 0.14 ppm applies.

/f/ Number of observed excess days (measurements taken once every six days).

/g/ ug/m3: micrograms per cubic meter.

SOURCE: BAAQMD, 1977 - 1979, Contaminant and Weather Summaries, and Air Pollution in the Bay Area by Station and Contaminant, 1980.

F. NOISE

Transportation is the predominant source of noise in San Francisco. In the vicinity of the site, automobiles and buses are the main noise generators. When noise measurements were taken in June 1980, construction work on the north side of Francisco between Mason and Powell added to the ambient noise level of the area. The daytime operation of the malting mill was a noise source, and occasional helicopter and aircraft flyovers continue to affect ambient noise levels.

Existing background noise levels were measured at four locations on and near the site as illustrated in Figure 31 (p. 48). Along Chestnut Street (position 1), 24-hour continuous measurements were taken between 3:30 PM, June 18, 1980, (Wednesday) and 3:30 PM, June 19, 1980 (Thursday). As indicated in Table 6 (p. 49) the noise level in dBA /2/ was 65 L_{dn}. (See p.49 for a description of noise measures).

Additional 15 minute measurement samples were taken between 7-9 AM and 4-6 PM at position 2 along Mason between Chestnut and Francisco, position 3 along Francisco between Mason and Powell and at position 4 along Powell between Chestnut and Francisco. The morning and afternoon noise levels at these positions vary between 57-68 L_{90}, which is the noise level that is exceeded 90% of the time, a measure similar to L_{dn} except that L_{dn} is based on 24-hour continuous noise measurement. Table 6 also shows the equivalence in dBA of L_{90} to L_{dn}. The greatest noise level is 69 L_{dn} at position 4 on Powell between Chestnut and Francisco.

The Environmental Protection Element of the Comprehensive Plan contains estimated background noise levels of 65 dBA (measured in L_{dn}) for Powell between Chestnut and Francisco. /1/ This is 4 dBA lower than the 69 dBA (L_{dn}) estimated for position 4.

/1/ The dBA (A-weighted decibel) is a quantity, in decibels, read from a sound-level meter switched to the weighting scale labeled "A". The A-scale discriminates against the lower-frequency sounds to approximate the auditory sensitivity of the human ear.

/2/ San Francisco Department of City Planning, Environmental Protection Element, p.18, adopted by Resolution 7244 of the City Planning Commission on May 24, 1974.

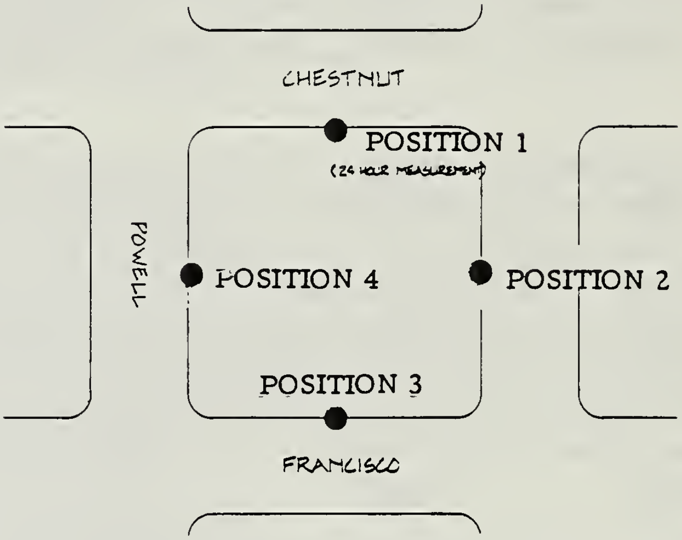


Figure 31
NOISE MONITORING POSITIONS
SOURCE: Paoletti/Lewitz/Associates, Inc.

Table 6

EXISTING AMBIENT NOISE LEVELS IN DBA

Measurement Location	24-Hours Time Period	L_{dn} 2/	CNEL 3/	$L_{eq(24)}$ 4/
Position 1	3:30 PM, Wednesday 18 June 1980	65	66	62
Chestnut between Mason & Powell	to 3:30 PM, Thursday 19 June 1980			

Measurement Location	15 Minute Time Period	L_{10}	L_{50}	L_{90}	L_{eq}	L_{dn} 5/
Position 2	8:00 AM - 8:15 AM 18 June 1980	68	60	57	63	63
Mason between Chestnut & Francisco	4:40 PM - 4:55 PM 23 June 1980	65	60	57	63	
Position 3	8:30 AM - 8:45 AM 18 June 1980	67	65	63	65	65
Francisco between Mason & Powell	5:00 PM - 5:15 PM 23 June 1980	72	70	68	70	
Position 4	8:15 AM - 8:30 AM 20 August 1980	74	62	58	69	69
Powell between Chestnut & Francisco	5:00 PM - 5:15 PM 20 August 1980	74	63	56	69	

Notes

1/ See Paoletti/Lewitz/Associates, Inc., Acoustical Study for Francisco Place, for complete graphs of the L_{10}, L_{50}, L_{90}, and L_{eq} sound levels for each hourly interval during the measurement period, on file at Office of Environmental Review.

2/ The L_{dn} (day-night equivalent sound level) is a 24 - hour average sound level with a 10 - dBA penalty added to the sound levels measured during the 9 night-time hours between 10 PM to 7 AM. This allows for people's increased sensitivity to noise at night.

3/ The CNEL (Community Noise Equivalent Level) is similar to the L_{dn} except that a 5 - dBA penalty is added to the sound levels measured during the 3 evening hours from 7 PM to 10 PM in addition to the 10 dBA penalty added to the 9 night-time hours from 10 PM to 7 AM.

4/ The L_{eq} (equivalent sound level) is the steady-state, or constant, noise level that would convey the same noise energy as the time-varying noise at the measurement location in the same measurement time period. L_{eq}(24) is the equivalent sound level measured over a 24-hour period.

5/ For each hour during the day, the noise levels exceeded 10% (L_{10}), 50% (L_{50}), and 90% (L_{90}) of the time are noted. These three descriptors are commonly used to describe the peak (L_{10}), average (L_{50}), and ambient (L_{90}) noise levels of a particular environment.

G. ENERGY

Pacific Gas and Electric Company (PG&E) supplied Bauer-Schweitzer with gas and electricity. The 1979 energy consumption pattern for the malting mill and offices is presented in Table 7 (below). A period of low gas and electrical consumption occurred in September and October 1979 when malting operations were cut back and mechanical equipment was cleaned. This did not occur seasonally or every year.

Table 7

ENERGY CONSUMPTION FOR THE BAUER-SCHWEITZER MALTING MILL

	Gas (BTU x 10^8) /1/	Electricity (KWH) /2/
January	44	112,000
February	41	100,000
March	42	107,000
April	42	102,000
May	42	107,000
June	42	120,000
July	41	117,000
August	42	119,000
September	9	87,000
October	13	11,000
November	42	104,000
December	43	104,000

/1/ BTU: British Thermal Unit, a standard unit for measuring heat. Technically, it is the quantity of heat required to raise the temperature of one pound of water 1° Fahrenheit (251.98 calories) at sea level.

/2/ KWH: Kilowatt Hour - The quantity of electricity delivered in one hour at the rate of one kilowatt (1,000 watts). Ten 100-watt light bulbs burning for one hour use one kilowatt hour.

SOURCE: Bauer-Schweitzer PG&E bills, 1979

H. GEOTECHNICAL

According to the Community Safety Element of the Comprehensive Plan, the site lies in a special geologic study area where there is potential for ground failure hazards. The site area is also in an area of potential subsidence hazard, and would experience moderate damage in a 1906-type earthquake. /1/

An 1852 topographic map of the City of San Francisco shows the early shoreline of the Bay in the vicinity of Francisco Street. Today the site is about one half mile from San Francisco Bay. There are no creeks, lakes or other surface waters on the site. Exploratory borings on the site found ground water at levels of five to ten feet below the surface. However, the borings may not have been left open long enough to establish equilibrium groundwater conditions. In addition, fluctuations in the groundwater level may occur due to variations in rainfall, temperature and factors not evident at the time measurements were made. /2/

/1/ City and County of San Francisco, Department of City Planning, Community Safety Element of the Comprehensive Plan, adopted by Resolution 7241, September 12, 1974.

/2/ Peter Kaldveer & Associates Inc., Foundation Investigation Mason Street Apartments, January 11, 1980, on file at the Office of Environmental Review.

I. COMMUNITY SERVICES

Fire: Fire protection services are provided by the San Francisco Fire Department, Station 28 at 14 Stockton Street, about two blocks east of the site. Response time to fire alarms is less than three minutes. /1/

Police: The site is served by the Central Station of the San Francisco Police Department located on Vallejo west of Columbus. According to Police Department crime statistics for 1980, the site is in a high crime area (Reporting Area 314). Of 540 total reported incidents in 1980, there were 43 strong-arm and weapon robberies, 40 assaults, 65 burglaries, 195 thefts and 189 other reported crimes. The area is comparatively well served in terms of patrol services. /2/

Water: Water for the City is provided by the Hetch-Hetchy and San Francisco Water Department System via the Crystal Springs Lake or bypass and the San Andreas Reservoirs. The Francisco Reservoir at Francisco between Hyde and Larkin serves the site area, and has a capacity of 2.5 million gallons. /3/ A six-inch water main runs underneath Chestnut Street in the vicinity of the site.

Sewer: Sewer mains underneath the streets bordering the site are all three to five foot brick sewers with the exception of a 60-inch main on Francisco between Mason and Powell. Wastewater and storm-flow is transported to the City's Northpoint plant. /4/

Other Services: The closest hospitals to the site are the Chinese Hospital on Jackson between Stockton and Powell and St. Francis Memorial Hospital at 900 Hyde Street. The closest parks are Moscone Park at Chestnut and Buchanan and the North Beach Playground, two blocks south of the site. Public schools serving the site include Raphael Weill Elementary School at 1501 O'Farrell, Francisco Middle School at 2190 Powell, and Galileo High School at 1150 Francisco. The public library operates a North Beach Branch at 2000 Mason Street.

/1/ Joseph Sullivan, Chief of Support Services, written communication, April 21, 1981.

/2/ Sergeant James Farrell, Planning & Research Division of the Police Department, written communication, November 20, 1981.

/3/ Ken Wong, Associate Engineer, San Francisco Water Department, telephone conversation, April 4, 1981.

/4/ Donald Hayashi, City and County of San Francisco, Clean Water Program, Sanitary Engineering Department, telephone conversation, August 3, 1981.

J. ECONOMIC AND FISCAL CONCERNS

Bauer-Schweitzer employed about 20 industrial and office workers at the site. The rental house on Mason Street contains one dwelling unit. In fiscal year 1980-1981, property tax for the malting mill was $30,750 and for lots 17, 18, 19 was $9,017. Of the combined $39,767, 85% ($33,802) went to the City and County of San Francisco, 7% ($2,784) went to the Unified School District, 6.8% ($2,704) went to BART, 1.1% ($437) went to the Community College District and 0.1% ($40) went to the Bay Area Air Quality Management District. Payroll tax for the mill was $7,078 in calendar year 1980. Utility users taxes generated another $18,347 in calendar year 1980.

IV. ENVIRONMENTAL IMPACTS

Pursuant to Section 15080 of the California Environmental Quality Act (CEQA), an Initial Study was prepared for the proposed Francisco Place Project on February 6, 1981. In accordance with Section 15141 (e) and (f) of the CEQA guidelines, the Environmental Impact Report (EIR) focuses only on those effects which were considered to be potentially significant by the Office of Environmental Review and so indicated in the Initial Study. (See Appendix E, pp.157 -166). Based on the Initial Study, the following effects of the proposed project have been determined to be insignificant or have been mitigated to a level of insignificance, and therefore are not addressed in the EIR: operational noise, biology, topography, hazardous uses, and health hazards. Reasons for determining these effects insignificant are contained in Appendix E of this report.

A. LAND USE AND PLANNING CONSIDERATIONS

The project would add 40 dwelling units and 10,000 square feet of occupied office space in the malting towers and retain one of the silos as a circulation core for the use of the towers. Four new buildings containing 53 dwelling units, 38,000 sq. ft. of offices, two below-grade floors of parking and an additional parking area on the first level would be constructed. The Planning Code requires 25% of the depth of the lot to be rear yard. /1/ The configuration of the rear yard may vary with a PUD. As shown in the landscape plan (Figure 14, p. 20), the "rear yard" would extend throughout the center of the site. About 19,000 sq. ft. or 35% of the site would be dedicated to common useable open space, including gardens, walkways and terraces. Another 7,500 sq. ft. is dedicated to private open space on patios and balconies, when about 5,600 is required. /2/

The 93 residential units would be 168 units less than the 261 permitted for a Planned Unit Development. /3/ Without Planned Unit Development designation, the site could be developed with 131 dwellings. /4/ Thus, the project would result in a 29% reduction in allowable density without consideration of the PUD provisions.

With Conditional Use authorization, office space could be provided above the first level and up to 188,992 sq. ft. of office space could be developed in addition to dwelling units. /5/ The 48,000 sq. ft. proposed by the sponsor would be 77% less than that allowed by the Planning Code as a conditional use. The site could not be economically developed with more than about a 5% increase of the 191 parking spaces proposed, as the cost of excavation below 30 feet is considered prohibitive by the sponsor. This limits the capacity of the site in accommodating more intensive residential and office use.

Because the site is in a 40-foot height district, the two towers, which are 92 and 78 feet high, and the silo which is 70 feet high would continue to be non-complying structures. These structures are allowed to remain on the site, provided renovation does not enlarge or alter them in a manner that would increase their non-compliance. /6/

In general, the project would contribute to a long-standing land use trend in North Beach, which is shifting away from industrial to residential and commercial uses. The residential density of the towers would be similar to that of multifamily residences found north of Bay Street. The lower density units proposed for Chestnut Street would be more in keeping with the low rise character on that block.

Cumulative land use impacts of this and other projects would continue the land use succession process from industrial to residential and supportive commercial uses. Residential units would satisfy some of the City's housing demand, and could attract residents to the City who do not live there now. As consumers of neighborhood commercial goods and services, new residents would generate greater demand on existing community services to the area.

Policies stated in the Residence Element of the Comprehensive Plan include the following: /7/

- Preserve and expand the supply of low- and moderate-income housing (Objective 4, Policy 1);
- Encourage economic integration (Objective 5, Policy 2);
- Ensure the availability of quality rental housing (Objective 5, Policy 3).

The site is in the Chinatown/North Beach Neighborhood Strategy Area of the 1982 Community Development Program and Housing Assistance Plan. /8/ Objective 1 for this strategy area states the following:

> Maximize housing opportunities for low- and moderate-income residents of the Chinatown/North Beach area.

The provision of 12 moderate income units on the site would be responsive to these policies.

Policies stated in the Commerce and Industry Element of the Comprehensive Plan include the following: /9/

- Seek to retain existing commercial and industrial activity and to attract new such activity to the City (Objective 2, Policy 1);
- Promote the multiple use of neighborhood commercial areas with priority given to neighborhood-serving retail and service activity (Objective 8, Policy 1).

Although the project would replace a previous industrial use, it would attract new commercial activity to the City, The project would be mixed use although not necessarily a neighborhood-serving activity, as professional offices and other services are expected to occupy the office space.

/1/ Section 134(a) of the City Planning Code.

/2/ Section 135(d), Table 3 of the City Planning Code.

/3/ Sections 303 and 304 of the City Planning Code.

/4/ Section 209.1(k) of the City Planning Code.

/5/ Section 124, Table 1 of the City Planning Code: 52,498 sq. ft. x 3.6 FAR = 188,992 SF.

/6/ Section 188 of the City Planning Code.

/7/ City and County of San Francisco Department of City Planning, Residence Element, adopted by Resolution 7417, December 11, 1975, (p. 3).

/8/ City and County of San Francisco, Mayor's Office of Community Development, 1982 Community Development Program and Housing Assistance Plan: Preliminary Program, July 1981, (p. 24).

/9/ City and County of San Francisco, Department of City Planning, Commerce and Industry Element of the Comprehensive Plan, adopted by Resolution 8001, June 29, 1978, (pp. 2-3).

B. HISTORIC RESOURCES

Archeological investigation of the site, historical documents and boring logs suggest that there may be remains of Meiggs' Sawmill and a variety of cultural materials from the 1860s and 1870s preserved beneath the existing buildings. Foundations for the west side of the sawmill extended eight feet below sidewalk grade, which indicates sawmill remains and those of other early buildings may not have been damaged by construction of the present Bauer-Schweitzer plant. Any sawmill remains under and within twenty feet of the towers would be undamaged by the project, as there would be no excavation in such areas. This is shown in Figure 32 (p. 57). Consequently about 50% of the area covered by Meigg's Sawmill as located by 1852 and 1857 Coast Survey maps /1/ could be affected by the project.

On the three lots to the west of the malting mill (lots 18, 19, 20), the 1891 Sanborn map indicates the presence of three residential buildings which could be impacted by construction of the garage ramp. These structures were destroyed by the 1906 fire following the earthquake, so only rubble and ash-filled basements could be encountered during excavation for the access ramp. At the eastern-most end of the proposed ramp, there may be remains of a large unidentified building indicated on the 1857 Coast Survey map, five to ten feet below the present surface of the site, where excavation for the project would be about 25 feet deep. Construction of the existing malting mill with its sunken first floor would have removed all traces of the antecedent Lyon's Brewery, unless that building had a 10-12 foot or deeper basement. /2/ Boring data suggests that remains of 1850's houses along Chestnut Street, as indicated on Coast Survey maps, may exist beneath the basement of the Chestnut Street building, at a depth of 10-11 feet below street grade, which could be impacted by new construction.

Impacts on the Bauer-Schweitzer malting mill itself include the demolition of a corrugated metal shed on Francisco, a wood frame antique storehouse, two two-story masonry office and warehouse buildings fronting on Chestnut Street, 13 silos, and a wood frame house on Mason. Industrial equipment that would be removed include turn-of-the-century kilns, ovens, malting drums and malt bins. There would be a loss of original material for the towers, which are designated a City landmark. The adaptive reuse of them as housing would change their appearance and character. Due to designation of the towers as a landmark, a Certificate of Appropriateness would be required for the proposed alterations.

/1/ Archeo-Tec, Inc., Archeological Resources, op. cit., p. 23.

/2/ Normal basements of this period ranged from eight to nine feet deep, according to Jack Pritchett, Archeo-Tec, Inc., telephone conversation, August 6, 1981.

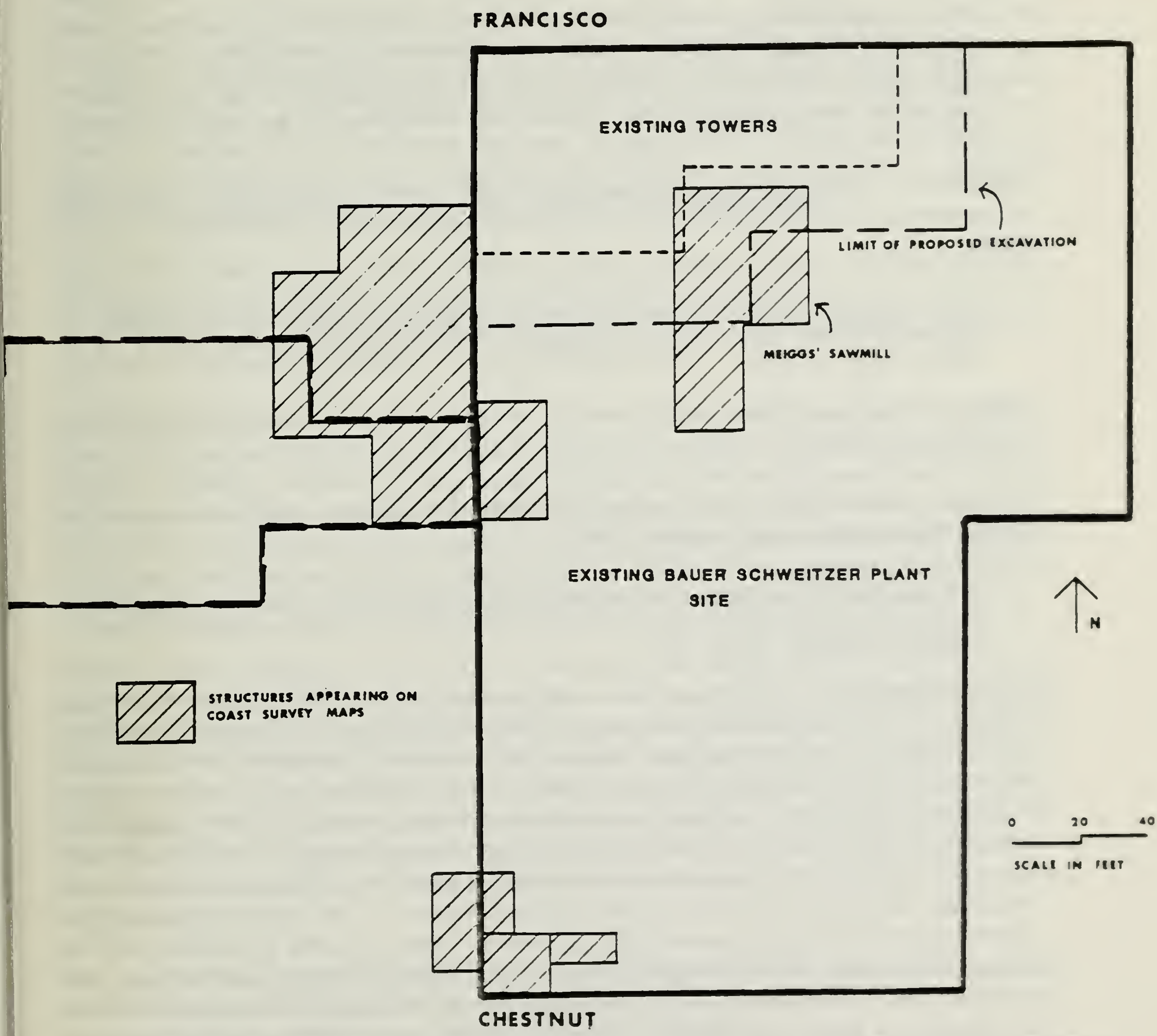

FRANCISCO
EXISTING TOWERS
LIMIT OF PROPOSED EXCAVATION
MEIGGS' SAWMILL
EXISTING BAUER SCHWEITZER PLANT SITE
N
STRUCTURES APPEARING ON COAST SURVEY MAPS
0 20 40
SCALE IN FEET
CHESTNUT

Figure 32

IMPACT OF EXCAVATION ON REMAINS OF MEIGG'S SAWMILL

Source: Archeo-Tec, Inc.

C. VISUAL QUALITY AND URBAN DESIGN

Adaptive reuse of the towers and the silo is responsive to a conservation policy of the Urban Design Element of the Comprehensive Plan /1/ which states:

> Historic buildings, and in fact nearly all older buildings regardless of their historic affiliations, provide a richness of character, texture and human scale that is unlikely to be repeated often in new development. They help characterize many neighborhoods of the city, and establish landmarks and focal points that contribute to the city pattern (p. 17).

Provision of terraced yards and gardens on the interior courtyard of the project is responsive to the plan's principles for neighborhood environment stating that:

> In the design of new pedestrian areas, changes of level can add greatly to interest and amenity if a reasonable relationship between levels is maintained (p. 47).

These changes in level can be seen in the artist's rendering of the interior courtyard (Figure 6, p. 10).

Provision of parking below grade is responsive to the plan's principle for neighborhood environment stating that:

> Parking under buildings or in an inside court allows the building to help define the street and avoids the blighting visual effects of an exposed parking lot (p. 45).

The architectural treatment of the towers would change their appearance from an industrial to a residential building. The most noticeable difference would be the addition of windows and the removal of mechanical equipment from the roof. The redesign of these buildings would make use of architectural elements such as pilasters, parapets, cornice lines and rusticated stone at street level. The silo would remain as is on the exterior except for painting; it would be brought up to Building Code standards and earthquake-proofed. All newly constructed buildings on the site would be light-colored stucco at the upper levels, over a light-colored rusticated stucco base at street level. Strong horizontal banding at the first story along Chestnut Street would visually separate the office from residential floors. Building setbacks above the second floor would reduce apparent mass along the street. Along Francisco, the existing tower pilasters would emphasize the recessed window bays and dwelling modules. The new 40-foot tall building adjoining the towers on Francisco would be functionally and visually integrated with the towers. The architects have tried to retain an industrial quality in facade design. The use of glass is pronounced, and the square windows and flat roofs suggest the early machine-age style of architecture, which was a predecessor to The Bauhaus, widely accepted as the school that founded modern architecture and the International Style.

The courtyard and Chestnut Street buildings would be contemporary in style. The removal of all but one silo would change the urban landscape by eliminating these unique, cylindrical forms and could lessen the visual contrast of the site compared to the surrounding area. Some members of the community feel they are evocative of another era in the City's history and some enjoy the changing shadow patterns cast by one silo on another. On the other hand, some residents consider the entire site to be an eyesore. Figure 21 (p. 32) shows the silos as seen from Telegraph Hill and illustrates the way these tall elements, along with the tower, cotrast with the low-rise plane of the neighborhood.

The project would also involve removal of the railroad track, railroad car and electrical service armatures on the north facade of the towers, and removal of an abandoned railroad care from the rear of lot 18. These elements contrast with the residential character of the neighborhood.

With the proposed project, the towers and one silo would continue to dominate the block between Mason and Powell and block views of the Bay from Lombard Street. However, removal of the eight to ten feet of height contributed by the roof-top mechanical equipment on the towers would reduce the dominance of the structure. The towers would continue to be visible from Mason Street between Francisco and Chestnut and from the alley on Chestnut between Powell and Mason. The towers would not be visible from points beyond Telegraph and Russian Hills.

Shadows would continue to be cast across Francisco Street by the towers during parts of the day; however, these would be lessened due to the removal of the roof-top mechanical equipment. Shadows cast by the north podium units on Francisco Street would probably not extend beyond the width of the street. Shadows cast by the other units would fall into the interior courtyard. These units have been designed through terracing to minimize the shadow impacts on the courtyard. Shadow diagrams and calculations for shadows cast by the project during December 21st, September 21st, March 21st and June 21st are shown in Appendix D (pp. 153-156).

The project would increase night-time light, as glass would account for most of the new exterior surfaces of the towers where few windows now exist. This may be annoying to neighbors living on hills overlooking the site, as light could obscure views of the waterfront and fixtures kept on all night could interfere with sleep. This has been a problem with respect to office buildings in the North Point area, particularly the Blue Shield buildings where bands of flourescent lights stay on much of the night. Daytime glare could impact structures glare could be minimized through the use of brown-tinted glass. Telegraph Hill would block out direct morning sunlight and the more distant Russian Hill would block out direct sunlight in the late afternoon.

/1/ City and County of San Francisco, Department of City Planning, Urban Design Plan of the Comprehensive Plan, adopted by Resolution 6745, August 26, 1971.

D. TRANSPORTATION

Traffic: Table 8 (p. 61) summarizes the expected trip generation of the project. There would be about 590 vehicle trips daily, with about 110 occurring in the peak hour (4:30 to 5:30 PM). Due to uncertainties concerning the ultimate off-site destinations of project-generated traffic, a worst-case assumption was made to predict traffic circulation patterns on the surrounding street system. This was done by increasing traffic flow estimates by 30% for each street near the site. /1/

Figure 33 (p. 62), shows the peak hour distribution of project-generated traffic on the streets under this assumption. As Francisco would receive most of the office related trips, most of the vehicle trips would concentrate there. The increase in vehicle trips on Mason would be less due to the smaller trip generation rate of residences, compared to offices. Table 9 (p. 61), indicates the changes in reserve capacities, volume/capacity ratios and levels of service which would be produced by the project in the peak traffic hour. The proposed project would reduce service levels on the Francisco approaches to Mason and Powell Streets by one-half to one grade.

The eastbound approaches to Mason and Powell on Francisco would operate with average delays (service level C) in the peak traffic hour. All other critical traffic movements would perform at service level B or better. During the half-hour of highest combined pedestrian and vehicular flow (3-3:30 PM), the project

Table 8

TRIP GENERATION AND MODE USAGE

Land Use (Intensity)	Trip Generation Rates /1/		Trip Generation (Person Trips)		Mode Usage /2/					
	Daily	Peak Hour (% of Daily	Daily	Peak-Hour	Daily			Peak Hour		
					Auto/3/ Persons/Vehicles	MUNI/4/	Other/5/	Auto/3/	MUNI/4/	Other/5/
Residential (93 d.u.)	7/du	17.5	651	114	320/267	294	37	54/46	54	6
Office (48,000 SF)	17.5/ 1000 SF	20	840	168	400/330	400	40	80/67	80	8
			1491	282	720/597	694	77	134/113	134	14

/1/ Sources: San Francisco Department of City Planning, Guidelines for Environmental Evaluation Transportation Impact, October 1980.

/2/ Mode split percentages: Auto = 47.5%, MUNI = 47.5%, other = 5%.; except daily residential trips: Auto = 49%, MUNI =45%, other =6%.

/3/ Person trips/vehicle trips; auto occupancy = 1.2 persons/vehicle.

/4/ Includes MUNI trips to downtown transit terminals for regional travel.

/5/ Includes Golden Gate Transit trips, and trips made entirely by walking.

SOURCE: PRC Voorhees

Table 9

IMPACTS ON TRAFFIC SERVICE LEVELS

PEAK HOUR (4:30 - 5:30 PM.)

Intersection	Approach	1983 w/o Project			1983 with Project		
		Volume /1/	Reserve Cap/2/	L.O.S.	Volume	Reserve Cap /2/	L O.S.
Francisco/Powell	WB	127	335	B	129	327	B
	EB	76	311	B	107	273	C
	NB(left)	26	928	A	26	928	A
	SB(left)	13	892	A	18	887	A
Francisco/Mason	WB	106	419	A	155	350	B
	EB	74	302	B/C	81	260	C
	NB(left)	9	993	A	11	987	A
	SB(left)	24	952	A	27	939	A
Chestnut/Powell	WB	72	421	A	74	397	A/B
	EB	51	464	A	54	439	A
	NB(left)	20	915	A	25	898	A
	SB(left)	21	930	A	22	925	A
Chestnut/Mason	all	469	.36 /3/	A	535	41 /3/	A

L.O.S. = Level of Service; Cap. = Capacity; NB, SB, EB, WB, = northbound, southbound, eastbound, westbound approaches to intersections (see definitions in Appendix).

/1/ The 1983 project traffic volume without the project would be equal to 1980 traffic counts plus three years growth at 1% annually, plus 10% to account for normal variations of ± 10% which occur from day to day in peak hour traffic counts. These are worst-case assumptions.

/2/ Reserve capacities include adjustments for pedestrian interference.

/3/ Volume/Capacity ratio.

SOURCE: PRC Voorhees

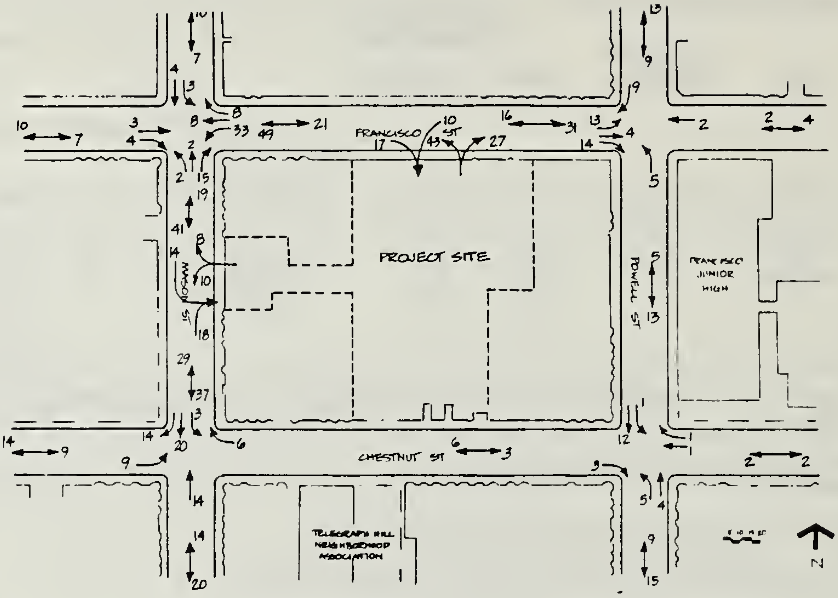


Figure 33
PEAK HOUR TRAFFIC DUE TO THE PROJECT
Source: PRC Voorhees

Table 10
IMPACTS ON DAILY TRAFFIC VOLUMES (1983) /1/

Street	Section	(a) 1983 Traffic w/o Project /2/	(b) Increase due to Project	(c) 1983 Traffic with Project	(d) % Change with Project
Francisco	W. of Mason	1270	90 /3/	1360	7
	E. of Mason	1650	380	2030	23
	E. of Powell	1620	30	1650	2
Chestnut	W. of Mason	1360	120	1480	9
	E. of Mason	1390	50	1440	4
	E. of Powell	880	20	900	2
Mason	N. of Francisco	3850	90	3940	2
	S. of Francisco	3310	360	3670	11
	S. of Chestnut	2870	190	3060	7
Powell	N. of Francisco	3960	120	4080	3
	S. of Francisco	3390	100	3490	3
	S. of Chestnut	2840	130	2970	5

/1/ To represent worst-case assumptions, project traffic generation has been increased by 30% over values contained in Table 8.

/2/ Represents "natural" increase without project development. 1983 ADT equals 1980 ADT plus 3% growth (1% per year).

/3/ Volumes represent trip segments. Since any given trip generated by the project may travel on more than one street section, the total trip segments generated by the project (1,680) is greater than the total vehicle trips generated by the project (597).

SOURCE: PRC Voorhees

would produce service level changes of less than one-half grade. The following locations would experience service levels of C or worse during this half hour:

Location	Direction at Traffic Flow	1983 Level of Service w/o Project	1983 Level of Service with Project
On Francisco at Powell	Westbound	C/D	D
	Eastbound	D	D
On Francisco at Mason	Eastbound	C	C
On Chestnut at Powell	Westbound	C	C
	Eastbound	C	C

Source: PRC Voorhees

The project would increase daily traffic volume on the adjacent streets by 3 to 23% over levels which would otherwise occur. Table 10 (p. 62) column (a) shows the amount of traffic on streets near the site that would be expected without the project. These figures are based on an estimated increase of 3%, or about 1% per year, from mid-1980 to mid-1983. /2/ When project-related traffic (column b) is added to the expected increase, the total future volume and the percent increase can be estimated, as shown in columns (c) and (d), respectively. Francisco between Powell and Mason would experience an increase of 380 cars or 23% over that which would occur without the project. Mason and Chestnut Streets would experience increases of up to 360 cars (11%) and 120 cars (9%) respectively. The proposed location of project driveways would result in a 4% (50 trip) increase on Chestnut near the Telegraph Hill Neighborhood Center. The increase on Powell in front of the Junior High School would be about 3% (100 cars). All other increases would be 7% or less.

The qualitative effect of increases in average daily traffic (ADT) on neighborhood residents can be estimated by analyzing survey responses of San Franciscans living on streets with similar traffic levels to those found at the site. A survey of over 400 households located on 22 streets with traffic volumes ranging from 200 to over 50,000 ADT, indicates that human perception of traffic-related disturbances of the magnitude that would be caused by the project would generally be negligible. /3/ Less than 1% of the neighborhood residents would perceive any kind of disturbance due to an increase of 100-200 ADT on streets near the site, given existing traffic volumes. On Powell and

Chestnut, the increase due to the project would be less than 150 ADT, which would not produce measureable disturbance impacts.

The largest increase in daily traffic would be 300-400 ADT on Francisco and Mason Streets. On the former, impacts would be experienced on the portion of the street between Mason and Powell, where traffic would increase by 380 trips. This magnitude of change would result in a one percent increase in the number of residents who would perceive the street as too noisy (from 45% to 46%). There would be a 2% increase (from 34% to 36%) in the number of residents who would perceive traffic-related air pollution, including dust and fumes. Traffic associated with the project would increase by 2% the proportion of people who would perceive interference with activities such as television watching, talking and sleeping. The percent perceiving interference of traffic with curb-side activities would rise from 15% to 18%. About 57% of the residents would consider existing traffic levels dangerous to children without the project and about 59% would consider traffic danger significant with the project. The number of residents who would characterize the street as having too much traffic would rise from about 16% to about 17%. /4/

The project would cause a similar increase in traffic (about 360 ADT) on Mason Street between Francisco and Chestnut and would produce an increase of 1% - 3% in the number of residents who felt disturbed. On other parts of Mason, Francisco, Chestnut and Powell, traffic from the project would produce unquantifiable increases in perceived disturbances. The site block has relatively few residential buildings, compared to other nearby blocks, as there are commercial facilities, vacant lots and new construction which is not fully occupied. Consequently, the disturbance reaction could be of a lower magnitude than indicated above.

Parking: The proposed project would include a three-level garage containing 191 spaces. The street level would accommodate about 20 spaces and the floor below would accommodate about 78 parking spaces for office tenants and visitors during the day, and residential parking at night including four spaces for disabled persons. The third basement and driveway ramp would accommodate about 93 spaces for residential use. /5/ The sponsor proposes to implement a flexible parking management program to guarantee the optimal use of the garage spaces. The program would be administered by the homeowner's association and would allow the purchase of spaces by office-unit owners during the day and residential owners at night so that families with more than one auto could use office parking spaces at night and unwanted residential spaces could be leased out. Neighborhood residents would be able to purchase these off-peak and unwanted parking spaces at a discounted rate, compared to the amount that would be paid by either the office or residential occupants. This is because neighborhood residents would have restricted access to these spaces.

The overall parking supply ratios, without joint use, would allow one per residential unit and one per every 490 sq. ft. of occupied office space. With a flexible parking program involving joint use, project residents would have access to the 78 second-level office spaces during the evening and on weekends, raising the residential parking ratio to about 1.84 per unit. Some of these spaces would also be offered to neighborhood residents if the project's residential demand did not amount to the full 1.84 per unit. /6/ The parking demand generated by 48,000 sq. ft. of occupied office space would be about 77 for employees and 17 for visitors, or 94 in all. /7/ The availability of long-term parking for office workers would tend to encourage commuter driving rather than use of transit.

The project would increase on-street parking by about 35 spaces by removing the boxcar and railroad track spur and reducing the number of curb cuts on Francisco, Chestnut and Mason. About 25 of these would be in the "A" permit area. The additional spaces should accommodate overflow associated with visitors who might park on the street rather than in the project garage. As a result of all of these factors, the project would not adversely impact parking conditions in the area, but would add about 25-35 more spaces than it would use.

Transit: The project would generate about 700 Muni trips daily. Of these, about 135 would occur in the peak hour (4:30-5:30 PM). Many people commuting to project offices would be travelling in the off-peak direction toward downtown in the afternoon peak hour and/or would not be aboard Muni lines at their maximum load points. Peak hour ridership in the peak direction at the maximum load points would be about 80 trips. /8/

Comparing the 1983 projected ridership on project-area Muni lines with 1980 capacities, it is evident that even without Muni's Five-Year Plan improvements, a reserve capacity of about 660 spaces would exist at the time the project would be completed. The 80 Muni trips generated by the project travelling in the peak direction at the point of maximum loading would use 12% of this reserve capacity. However, one line, the 15-Third, will be over its capacity without the project which would increase this overload by 22 peak hour riders. /9/

With the Muni Five-Year Plan improvements, the total 1983 peak-hour capacity to the area will be about 11,340. The 80 project-generated trips which would use these lines in the peak travel direction at the point of maximum loading would represent less than 1% of the total capacity.

Pedestrian: Pedestrian volumes generated by the project would increase prevailing volumes in the area by about 75%. There would be about 150 pedestrian trips in the peak hour (4:30 to 5:30 PM), including those who walk to

Muni. /10/ Pedestrian service levels would remain at B or better, due to the priority treatment walkers receive at the surrounding stop-controlled intersections. /11/

Project traffic would impact pedestrian flows along Francisco and Mason Streets. In the half-hour of peak area-wide pedestrian flow (3:00 to 3:30 PM), about 25 vehicles would cross the sidewalk at each of the driveways on Francisco and Mason Streets. During that same period, about 60-85 pedestrians currently traverse each sidewalk. With the project, this would increase to about 100-115 pedestrians. Because the added number of potential conflicts would occur at mid-block locations, where pedestrians are least likely to anticipate vehicles, the project could impact pedestrian safety unless protective measures are taken.

Delivery and Loading: The project would generate truck traffic by both office space and residential units. Delivery and service calls would include small service vans, panel trucks and articulated moving vans. On average weekdays, the project would generate between 15 and 16 visits by service and delivery vehicles. /12/ On peak days, this total could rise to about 19. The maximum number of delivery and service visits would probably occur in the mid-morning (10 to 11 AM) and would total between two and three truck visits. This would probably include no more than one heavy truck visit; other visits would probably be by light van.

There would be no more than one vehicle loading (or unloading) at the site during non-peak periods. During high-activity periods (mid-morning), more trucks may accumulate at the site for loading and unloading. The peak 15-minute accumulation could be two or three trucks. The majority of vehicles would probably be light vans, station wagons and panel trucks. It is expected that at no time would more than one full-size or trailer truck be present at the site. The project would satisfy this demand by providing on-street loading spaces for larger trucks on both Francisco and Chestnut Streets and additional off-street space for smaller trucks and delivery vans.

According to Table 5 of Section 152 of the City Planning Code, the project would require one off-street freight loading space (for residential use) with minimum dimensions of 25 feet in length, ten feet in width and a vertical clearance of 12 feet (Section 154(b)). According to the July 30, 1981, revisions to the Department of City Planning's Guiding Downtown Development (Appendix D, Part 3), the project's requirement for off-street loading spaces would be two: one for residential use and one for office use.

The sponsor proposes to provide off-street loading spaces for vans and panel trucks only, with a vertical clearance of 11 feet. For all other loading vehicles, on-street yellow loading spaces would be provided alongside the garage entrance on Francisco and the lobby entrance on Chestnut. Direct access would be provided from the Francisco Street loading space to the lower-level office space and to the tower elevator by means of an electric cart shuttle. The building attendant would supervise loading and shuttle operations and would also be responsible for assuring that illegal parking would not take place in the designated yellow zones and that drivers would not attempt to on- and off-load at the main pedestrian entrances. A variance would be required to allow the proposed combination of off-street and designated on-street loading areas instead of the code-required off-street spaces.

Construction: During the 24-month construction period, there would be a maximum of 80 construction workers employed on site at any one time. /13/ It is estimated that they would generate about 40 to 50 automobile trips and 30 to 40 Muni trips in the peak traffic hour (4:30 to 5:00 PM). These levels are about 25-45% as high as the levels that would be generated by the completed project, and the associated traffic and transit impacts during construction would be less than one half the levels that would occur following occupancy of the project. Parking for construction workers would be provided by the contractor at an off-site, off-street location nearby, probably the North Point Garage. Consequently, there would be little or no impact on on-street parking during the construction period, as North Point has about 160 spaces available during normal daytime working hours.

Trucks hauling materials to and from the site would park on the site during loading and unloading activities, so there would be no disruption of traffic on the surrounding streets. During the six-month demolition period, about 12 truck trips would be generated daily by the site (six round trips). During construction, trucks and trailers would make a maximum of ten round trips daily. This would continue for a period of five months. The most probable route for truck traffic would be via Powell and Bay to The Embarcadero Roadway for access to the freeway.

Sidewalk closures would occur for about six to nine months on the south side of Francisco Street. During this time, it may be necessary to divert pedestrians to the north side of Francisco. In the peak hour of pedestrian flow, about 70 pedestrians would be redirected. Temporary partial street closures would be necessary during removal of the railroad spur tracks from Francisco, Mason and North Point Streets.

Comprehensive Plan: The Citywide parking plan of the Transportation Element of the Comprehensive Plan states the following: /14/

> Objective: Provide parking facilities in residential areas within the capacity of the City's street system and land use patterns;
>
> Policy 1: Relate off-street parking requirements in new housing to expected vehicle ownership;
>
> Policy 2: Use existing street space to increase residential parking where off-street facilities are inadequate.

The provision of below-grade parking would be responsive to the objectives of the Citywide parking plan and the determination of parking demand would respond to Objective 1, Policy 1. The recovery of on-street parking spaces through removal of the railroad tracks would respond to Policy 2.

Downtown transportation plans of the Transportation Element state:

> Provide short-term loading spaces on the street for small deliveries and essential services with strict enforcement (Objective 3, Policy 1, p.7).

Provision of yellow loading zones along the Francisco and Chestnut frontages of the project would respond to this policy.

Cumulative: Other projects recently completed or in the planning stages would have cumulative transportation impacts on the neighborhood. These include the following:

Telegraph Hill Condominiums (EE79.346):
20 units at Francisco and Grant, Assessor's Blocks 38 and 55.

Vandewater Street projects: Assessor's Block 41, up to 64 units.
444-460 (EE79.6) Francisco between Powell and Mason
55-65 (EE78.435) Vandewater, between Powell and Mason

Chestnut Court (81.154 VE):
20 units and 4,342 sq. ft. of retail space, located at the intersection of Columbus Avenue and Chestnut Street.

It is estimated that the Vandewater projects would add about 30 evening peak-hour vehicle trips to Francisco, 15 to Mason and 15 to Powell. /15/ Telegraph Hill Condominiums would generate one additional trip on Chestnut, and one on Francisco. /16/ The Chestnut Court project would generate about four trips each on Mason and Chestnut, and about one trip each on Francisco and Powell. The following table indicates the estimated 1983 peak-hour traffic increases due to this and other projects.

Street	1983 Traffic With No Development	1983 Traffic With Francisco Place Only	1983 Traffic With Cumulative Development
Francisco	165	235	270
Chestnut	130	139	144
Mason	355	421	438
Powell	365	383	398

Cumulative impacts on all but Francisco Street would result in traffic increases of less than 25% over that which would occur without these projects. On Francisco Street, the cumulative impacts would be about 65%, over that which would occur without these projects, or 20% greater than the impacts of the Francisco Place project alone.

The Vandewater projects have one parking space per dwelling, but visitors to these units could generate a demand for up to ten additional spaces, which could be accommodated by existing A-permit spaces and new spaces created by eliminating the railroad spur track and existing curb cuts adjacent to Francisco Place. /17/ Telegraph Hill Condominiums would have two parking spaces per unit, enough to compensate for spaces lost to curb cuts and to provide spaces for other neighborhood residents and visitor parking. /18/ The Chestnut Court project proposes to provide parking only for its residents, at a ratio of one per unit. The parking demand it would generate could be about 20 spaces more than the amount supplied. This number of spaces can usually be found in the area although some would be located three to four blocks from that project.

Vandewater projects residents would generate about 32 transit trips in the peak hour and peak direction, Telegraph Hill Condominiums would generate about 10, /19/ and Chestnut Court woud generate about 23. Francisco Place would generate about 80. /20/ All projects combined would result in a 3-4% increase in Muni ridership and would decrease Muni's local reserve capacity by up to about 22%.

The Vandewater projects would generate about 40 pedestrian trips in the peak hour (4:30 - 5:30 PM), including those walking to and from Muni. About half of these would be via Francisco, increasing prevailing pedestrian flows on this street by about 25%. The Telegraph Hill Condominiums and Chestnut Court projects would increase pedestrian flows on Francisco by less than 5% while Francisco Place would increase them by about 70%. /21/ The cumulative increase in pedestrian volumes during the peak hour would almost double existing volumes on Francisco Street.

Cumulative traffic increases due to other projects would interfere with pedestrian flows. The two streets with the highest pedestrian volumes, Powell and Chestnut, would each experience a 4% increase in traffic over the peak hour volumes that would occur with the Francisco Place project alone. In the hour of highest pedestrian flow (3:30 - 4:30), traffic increases would be about 3% higher with cumulative development than they would be with Francisco Place alone.

/1/ Refer to The Transportation Appendix (pp. 137-148) of this report for explanations and assumptions pertaining to worst-case traffic distribution.

/2/ Traffic growth rates on residential streets in this part of the City have typically been 1/2 to 1% per year, according to Mark Rand, Division of Traffic Engineering, Department of Public Works.

/3/ Donald Appleyard, "San Francisco: Living With Traffic," Liveable Urban Streets, January, 1976.

/4/ PRC Voorhees, Report on Transportation Impacts, November 4, 1981, on file at the Office of Environmental Review.

/5/ Current garage designs for the project (Figure 11, p. 15) are schematic. These show 20, 78 and 93 spaces on the three levels, respectively. However, according to the project architect, these totals could be modified as code requirements or parking demand warrant. Each level could accommodate about 5% more spaces than currently shown.

/6/ A telephone survey of households on Russian Hill revealed that 11 of 19 households owned more than one car, an average ownership rate of 1.7 per house hold. The sales agent for the Hyde Place Condominiums reports that every prospective buyer was concerned with the parking situation and wanted two off-street spaces. (Source: San Francisco Department of City Planning, Final Environmental Impact Report Chestnut Street Commons, EE79.453, certified January 8, 1981)

/7/ Based on a ratio of one employee per 250 sq. ft., mode usage of 40% auto drivers, and a visitor/employee ratio of 0.22 visitor parking spaces per employee parking space.

/8/ Refer to the Transportation Appendix of this report for details and assumptions on transit ridership estimates and transit impacts (Appendix B-2, pp. 143-144).

/9/ Based on a line-by-line analysis of Muni data provided in October, 1980, Guidelines for Environmental Review.

/10/ Pedestrian volumes included in the "other" columns in Table 8 (p.61) include only those trips during which the primary mode is walking. Muni trips, however, would also include a short pedestrian trip segment for transit riders to reach their bus stop. These walkers are represented above.

/11/ See Table B-2 (p. 138) of the Transportation Appendix in this report for level of service definitions.

/12/ See Table B-5 (p. 146) of the Transportation Appendix in this report for truck trip generation and accumulation.

/13/ Information on construction and manpower scheduling furnished by Mr. Gano Rodgers of Swinerton & Walberg Company, August 6, 1981.

/14/ City and County of San Francisco, Department of City Planning, Plan for Transportation, a portion of The Comprehensive Plan, adopted by Resolution 6834 on April 27, 1972, p. 7.

/15/ Tudor Engineering Company, Traffic Analysis: Vandewater Residential Development, February 27, 1979.

/16/ PRC Voorhees, Traffic Analysis for Proposed Rossi Condominium Development, August 20, 1979, and February 27, 1980.

/17/ Tudor, op. cit.

/18/ PRC Voorhees, Rossi Condominium Development, op. cit.

/19/ Ibid.

/20/ PRC Voorhees, Transportation Report, op. cit.

/21/ Ibid.

E. AIR QUALITY

The project would result in a short-term increase in particulate matter and a decrease in local air quality during demolition, excavation and construction over a 16 month period. Assuming one month of excavation on the 1.25 acre site, about 1.5 tons of dust per month would be generated, /1/ which could disturb people with respiratory problems. Construction particulates tend to settle out of the atmosphere quickly with increasing distance from the source.

The use of diesel-generated construction equipment would emit notrogen oxides, carbon monoxide, sulfur oxides, hydrocarbons and particulates. The amount of such pollutants emitted during construction would increase local concentrations of these pollutants but would not increase the frequency of violations of air quality standards.

The project would generate about 600 local vehicle trips per day, with about 110 occurring in the peak hour. Traffic would increase 2-23% on the four streets adjacent to the site, and about 1.5% on Bay Street. In order to reliably measure changes in air pollutants generated by vehicles, a subject street must have at least 2,000 peak hour trips and the project must add at least 10% of the existing volume. /2/ Although Bay Street carries about 2,000 vehicles in the peak hour, the project would not add enough traffic to it to make a measurably reliable difference in air quality. Likewise, as the four streets of the site block carry a maximum of about 350 vehicles in the peak hour, project-related traffic would not measurably affect air quality nearby, even though the percentage increase would be as high as 65% on Francisco when other nearby projects are taken into consideration (Telegraph Hill Condominiums, Vandewater Street projects, Chestnut Court).

The project would generate pollutants, particularly nitrogen oxides (NO_x) due to combustion of natural gas for space and hot water heating. In the Bay Area, stationary source NO_x control has been limited to only the largest sources. The dilemma of pursuing NO_x control is that this substance alone is not a problem in the Bay Area, but it is a contributor to photochemical oxidant (ozone). However, gas consumption for malting operations exceeded expected energy consumption for the proposed new uses, so there would be a net reduction in pollution compared to previous pollution from this source. It is estimated that the malting mill generated an average of 20 lbs of NO_x per day, while the project would generate about .4 lbs per day.

/1/ U.S. Environmental Protection Agency, Compilation of Air Pollutant Emission

Factors, 1978, Supplement #5.

/2/ Bay Area Air Pollution Control District, Guidelines for Air Quality Impact Analysis of Projects, June, 1975.

F. NOISE

Traffic Noise: Increases in traffic due to cumulative development of the Francisco Place Project, Vandewater Street projects, Telegraph Hill Condominiums, and Chestnut Court Project would produce an increase in noise level of less than 1.0 dBA in the vicinity of the project. This amount is undetectable to the human ear. /1/

Construction Noise: Construction activity associated with the project would increase ambient noise levels in the area by between 3 and 18 dBA depending on the type and quantity of equipment used and the phase of construction activity. A 3 dBA increase is considered a just-noticeable difference and a 5 dBA increase is required before any noticeable change in community response would be expected. A 15 dBA increase would almost certainly cause an adverse change in community response. Factors contributing to this adverse reaction are related to the disturbance of essential daily activities including interference with sleep, speech, listening to the radio, TV, or stereo, and interference with a restful, quiet environment. /2/ Table 11 (below) shows the range of construction noise levels to be expected at the site.

Table 11
EXPECTED RANGES OF CONSTRUCTION NOISE LEVELS AT THE PROJECT SITE

Estimated Duration /1/	Construction Phase	Range of Noise Levels /2/
32 days	Ground Clearing Excavation	Ldn = 78-79 dBA /3/ Ldn = 72-83 dBA
88 days	Foundation Erection	Ldn = 76 dBA Ldn = 68-77 dBA
175 days	Finishing	Ldn = 70-83 dBA

/1/ Letter from KAB Designs, Inc. per C.M. Peletz Co.

/2/ Range depends on quantity and type of equipment used.

/3/ L_{dn}: day/night sound level; 24 hour average sound level with a 10dBA penalty applied to noise levels during the nine nighttime hours (10 PM to 7 AM).

dBA: A-weighted decibel; a quantity in decibels, read from a sound-level meter switched to the weighting scale "A." The A-scale discriminates against the lower frequency sounds to approximate the auditory sensitivity of the human ear.

SOURCE: Paoletti/Lewitz/Associates, Inc.

/1/ Paoletti/Lewitz/Associates, Inc., Acoustical Study for Francisco Place, November, 1980, on file with the Office of Environmental Review and Joel Lewitz, telephone conversation of August 21, 1981.

/2/ Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances, U.S. Environmental Protection Agency, December 31, 1971.

G. ENERGY

Residential heating would be electrical and domestic hot water heating would be provided by a central gas-fired water heater. Office space heating would be provided by a central gas-fired boiler. The garage would not be heated. The total connected kilowatt load for the project would be 3,150 KW. The estimated average KWH /1/ to serve all electrical needs for the project would be 297,000 KWH/month or about 2.23 KWH/sf/month. Peak hour natural gas consumption for the project on a typical winter day would be about 640,000 BTU/hour. /2/ Average consumption of natural gas would be about 33.6 BTU/sf/day. /3/ Pacific Gas and Electric Company network distribution facilities are adequate to serve the project. The project would have no impact on local power generation. /4/

Building materials would exceed state energy conservation guidelines of the California Administrative Code, Title 24, Section 6. Design features which would help the proposed project to exceed Title 24 include the following:

- Selection of glass with thermal qualities (thermopane double-glazing) to limit heat gain and heat loss within the buildings.
- Insulation of roofs, walls and floors to limit the heat gain and heat loss within the buildings. The insulation would have an R-factor of 19.
- Treatment of door and window openings to limit the infiltration of outside air into the buildings.
- Selection of mechanical and electrical equipment which are certified to meet the energy efficiency requirements of the code.
- Insulation of pipes and equipment to limit heat loss and heat gain.

In addition, two conservation measures are under consideration: using a heat recovery cooling system to complement commercial hot water heating and using a solar-assisted heating system to complement domestic hot water heating.

The energy savings associated with these measures are presented in Figures 34 and 35 (p. 76). On an annual basis, wall and floor insulation rated R-19 would reduce heat loss for the whole project by about 12% over that which would be attained by compliance with Title 24 alone. With thermopane double-glazing, annual heat loss reduction would be 23% greater than Title 24 compliance alone. R-19 insulation and double-glazing together would result in a 33% heat loss reduction compared to Title 24 compliance. If a heat recovery system were used in addition to the above measures, energy consumption could be reduced 22% over that of Title 24 compliance alone. The heat recovery cooling system is accomplished by means of reclaiming the heat extracted by chilling circulated water which is normally released via a cooling tower. This heat would be used to complement the space hot water heater and would reduce gas consumption.

A solar-assisted system to complement domestic hot water heating equipment would be composed of 810 sq. ft. of solar collectors mounted on roof tops. This would reduce annual gas consumption for hot water heating by about 40%. (This is not related to heat loss reduction).

Figures 36 and 37 (p.78) show the expected monthly gas and electricity consumption pattern for hot water and space heating. Gas consumption peaks of 1.9×10^8 BTU/month would occur in December and January when office space heating requirements would be highest. Domestic hot water usage would be fairly constant during the year. Electrical energy consumption would also peak in winter when over 300,000 KWH would be consumed primarily for residential heating. The heating system proposed for residential units would offer room by room control, so that only rooms requiring heat would use energy. Consequently it is possible that electrical energy consumption would be lower than the amounts indicated in Figure 37 which were based on estimated consumption per square foot. Figures 38 and 39 (p. 79) show the expected daily gas and electricity consumption pattern during times of peak usage.

As Table 12 (p. 80) shows, the project would consume less gas and more electricity than the malting mill. The project would reduce gas consumption by 96% annually, from 443 BTU x 10^8 to 16.4 BTU x 10^8, attributable to ceasation of industrial processes such as heating and drying malt. Offsetting this would be about a 200% increase in electrical energy consumption, from 1,190,000 KWH to 3,592,000 KWH, primarily attributable to domestic space heating.

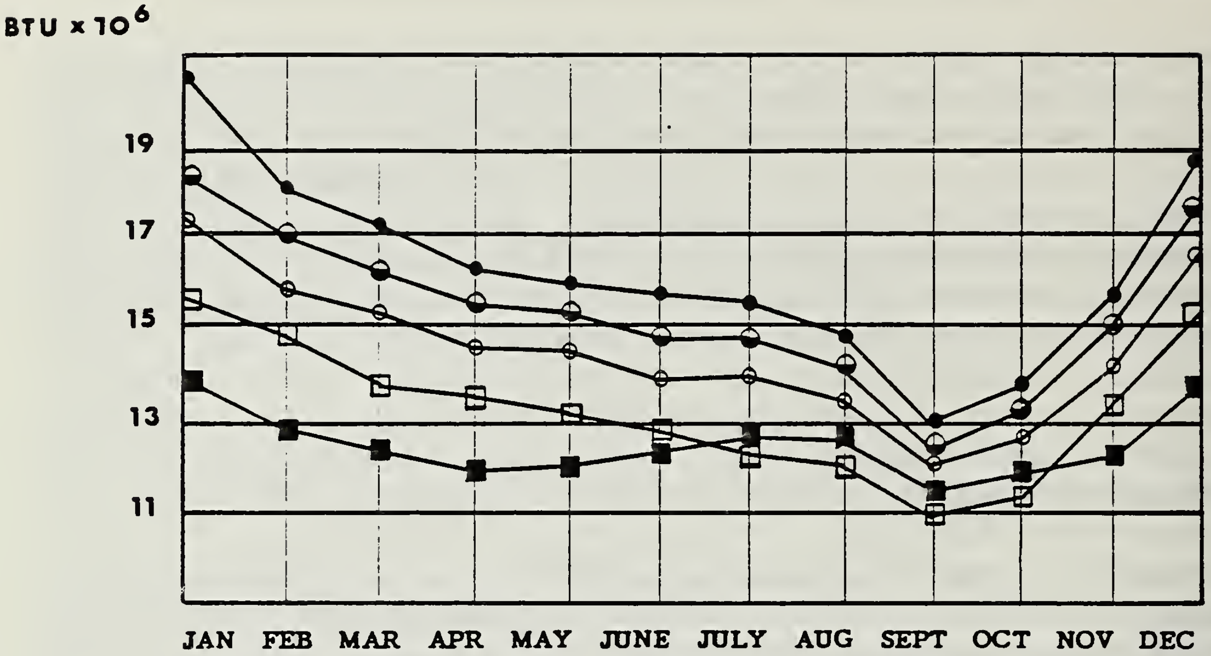


Figure 34
DAILY ENERGY CONSERVATION
Source: Glumac and Associates, Inc.

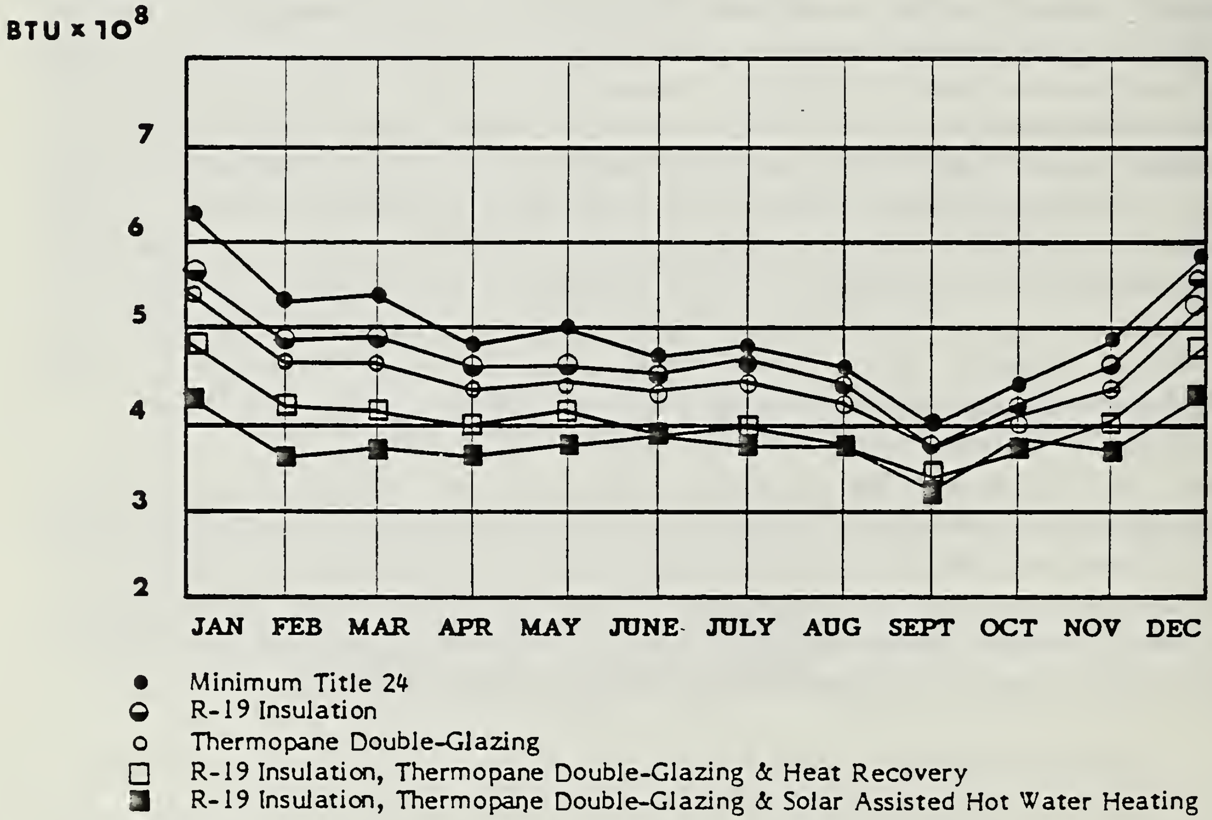


Figure 35
MONTHLY ENERGY CONSERVATION
Source: Glumac and Associates, Inc.,

IV. ENVIRONMENTAL IMPACTS

Assumptions used in determining energy consumption levels for the proposed project include the following:

1. Residential lighting was assumed at half-load during working hours and full load at other waking hours.

2. Demand was calculated for three time periods: 6 - 8:30 AM (residential), 8:30 AM to 6 PM (office), and 6 - 11 PM (residential).

3. Parking and other security lighting were assumed to be on 24 hours/day in areas not daylighted and all night in areas with daylight.

4. Elevators were assumed at 20 horsepower each and operated 21 hours/week each.

5. Office space occupancy was assumed to be ten hours/day, five days a week; residential space occupancy was assumed to be 24 hours/day.

6. Construction of building envelopes were assumed to be the minimum required by Title 24.

/1/ KWH - Kilowatt Hour: The quantity of electricity delivered in one hour at the rate of 1,000 watts. Ten 100-watt light bulbs burning one hour use one kilowatt hour of energy.

/2/ BTU - British Thermal Unit: Quantity of heat required to raise the temperature of one pound of water 1^{o} Fahrenheit at Sea Level.

/3/ Glumac and Associates, Inc., Mechanical and Electrical Environmental Impact Study, November 6, 1980 and August 19, 1981. Copy available on file at the Office of Environmental Review.

/4/ Jerry Tyson, Pacific Gas and Electric Company, telephone conversation of January 19, 1982.

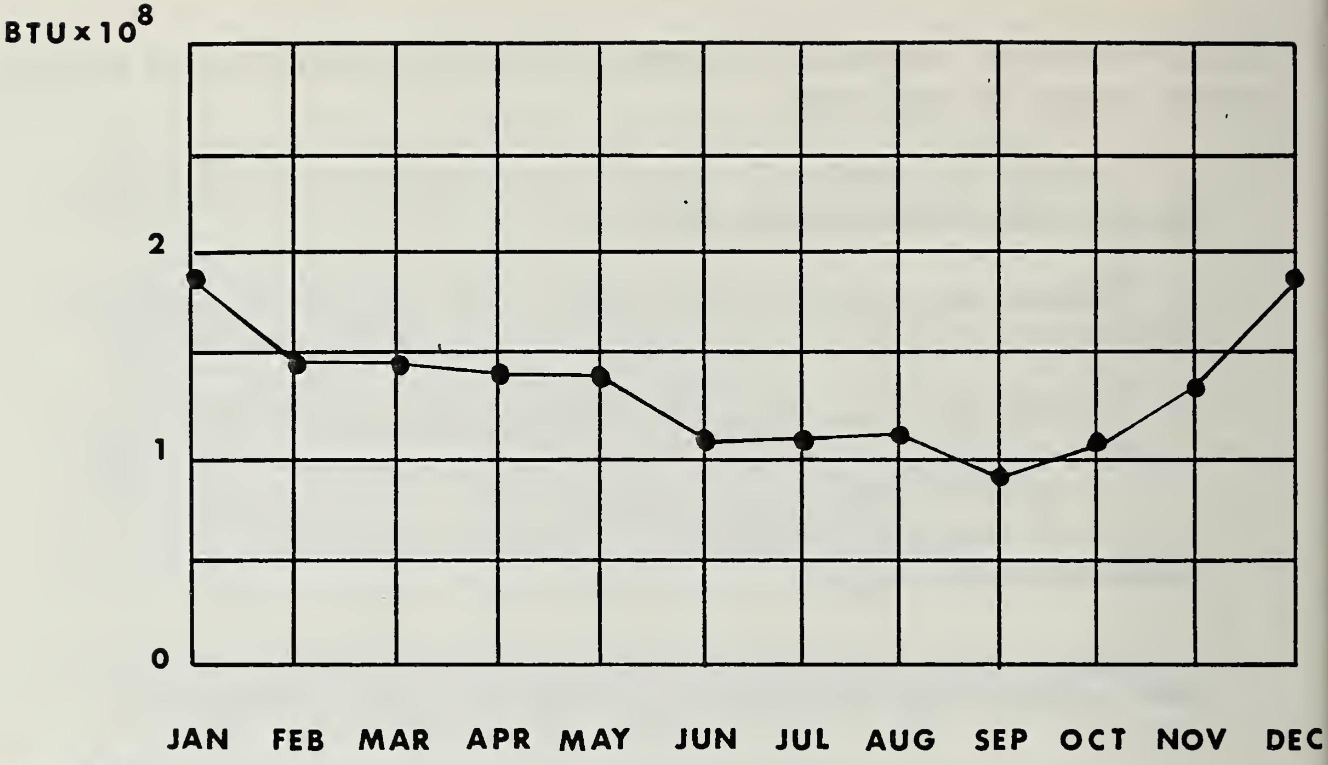
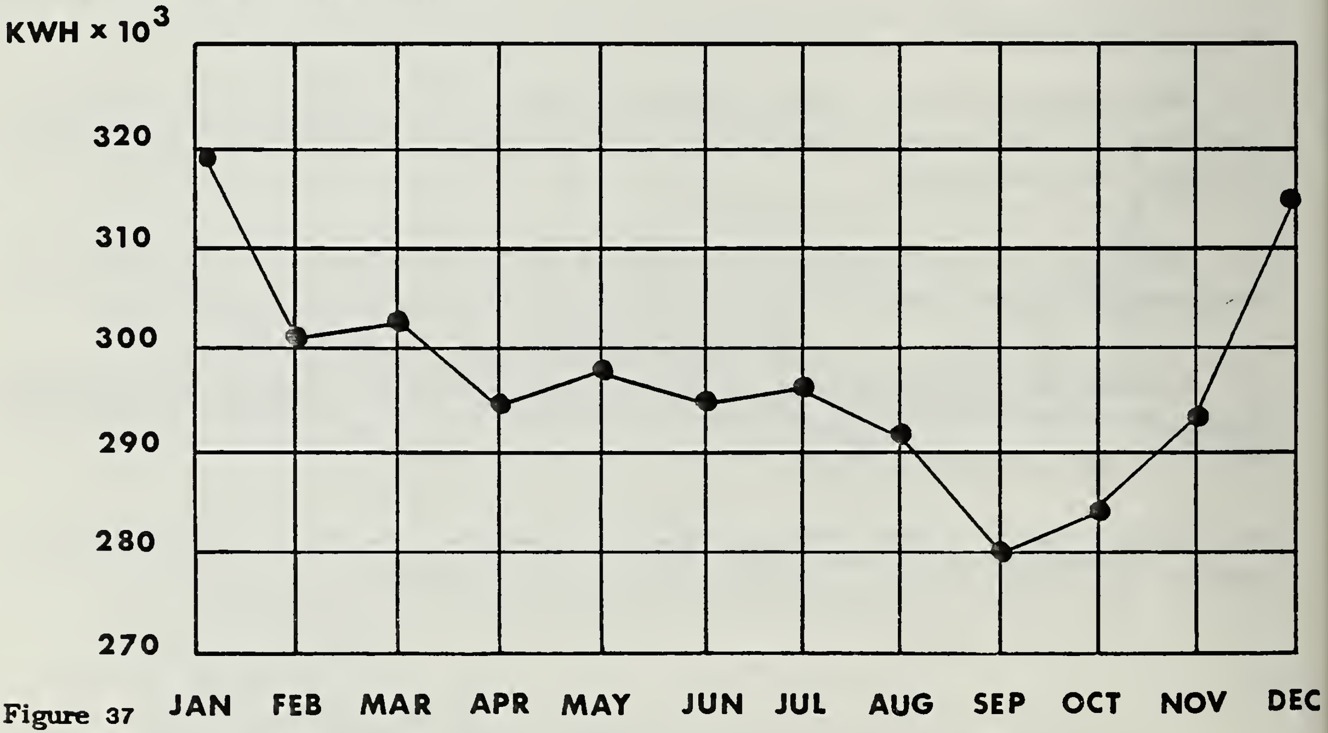


Figure 36

TOTAL MONTHLY GAS CONSUMPTION

Source: Glumac and Associates, Inc.



37

Figure 37

TOTAL MONTHLY ELECTRICAL CONSUMPTION

Source: Glumac and Associates, Inc.

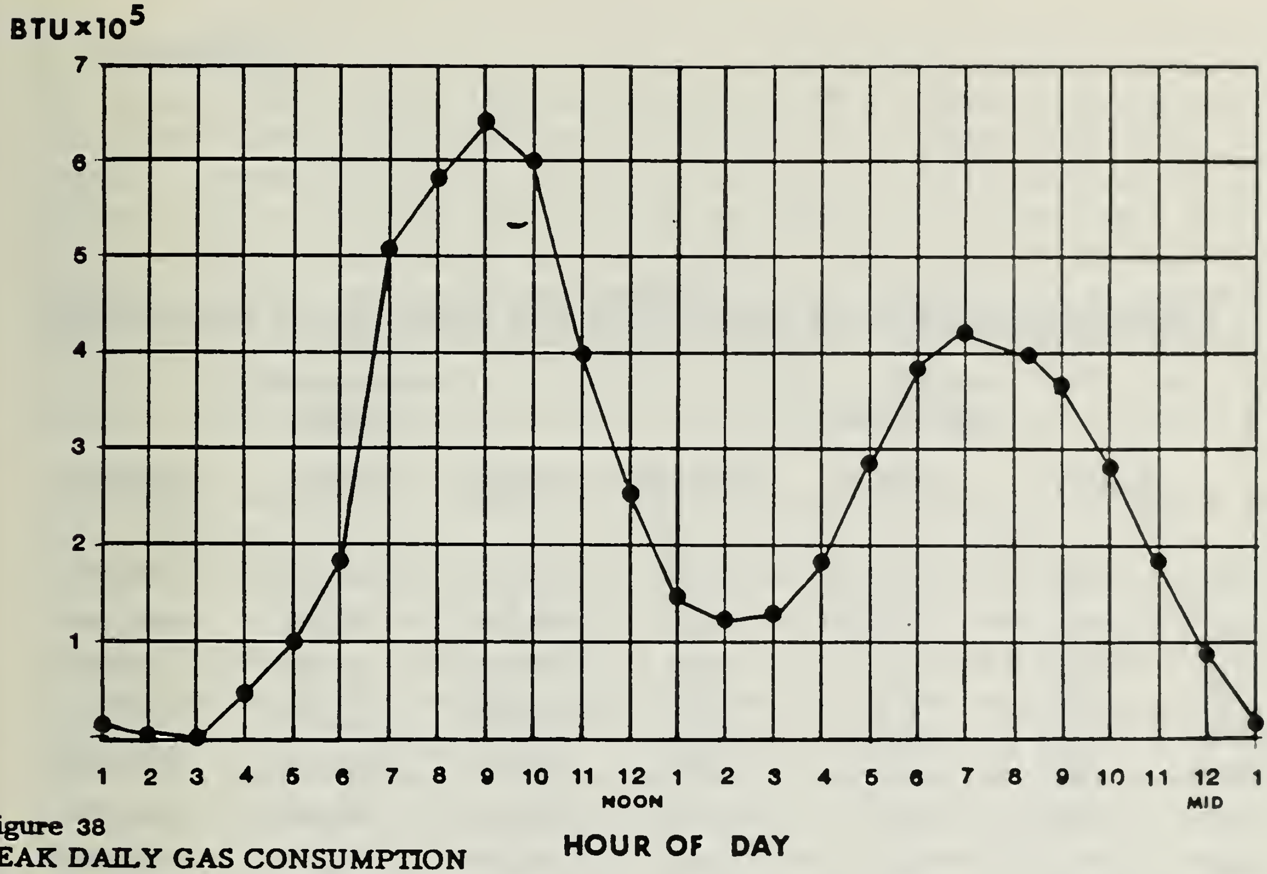
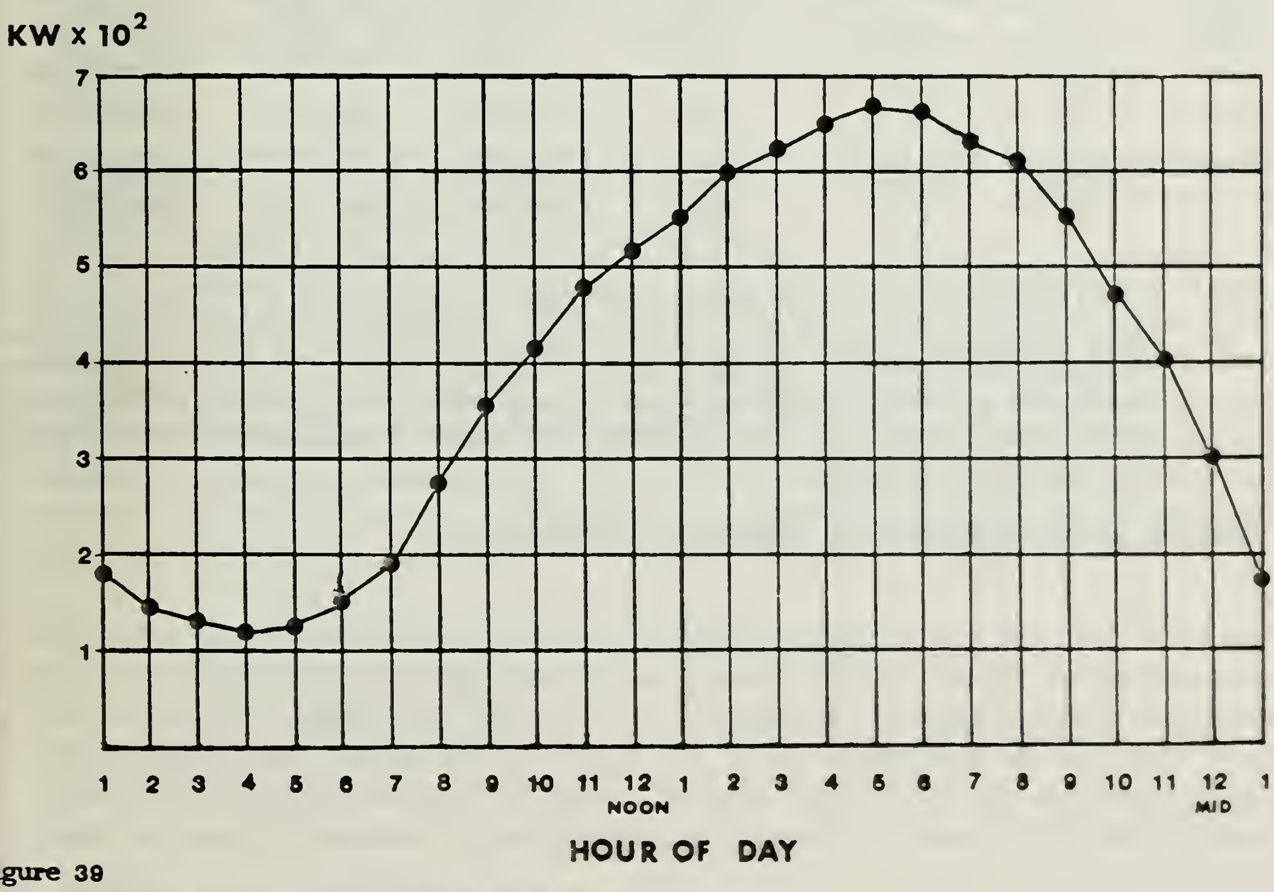


Figure 38
PEAK DAILY GAS CONSUMPTION
Source: Glumac and Associates, Inc.



igure 39
EAK DAILY ELECTRICAL CONSUMPTION
ource: Glumac and Associates, Inc.

Table 12
ENERGY CONSUMPTION OF THE MALTING MILL COMPARED TO THE PROJECT

	GAS (BTU x 10^8)			ELECTRICITY (KWH)		
	Factory	Project	Change/2/	Factory	Project	Change/2/
Jan	44	1.9	-42.1	112,000	320,000	+208,000
Feb	41	1.5	-39.5	100,000	300,000	+200,000
Mar	42	1.5	-40.5	107,000	315,000	+208,000
Apr	42	1.4	-40.6	102,000	295,000	+193,000
May	42	1.4	-40.6	107,000	297,000	+190,000
June	42	1.2	-40.8	120,000	295,000	+175,000
July	41	1.2	-39.8	117,000	296,000	+179,000
Aug	42	1.2	-40.8	119,000	291,000	+172,000
Sept	9/1/	.9	-8.1	87,000/1/	280,000	+193,000
Oct	13/1/	1.1	-11.9	11,000/1/	294,000	+283,000
Nov	42	1.3	-40.7	104,000	294,000	+190,000
Dec	43	1.8	-41.2	104,000	314,000	+210,000
	443	16.4	-426.6	1,190,000	3,591,000	+2,401,000

/1/ These values represent a period when the plant was closed for cleaning.

/2/ Using a conversion factor of 3,414 BTU/hour = 1 KWH, gas and electricity can be compared in terms of a common unit of energy (BTU). The factory consumed about 4.80 x 10^{10} BTU while the project would consume about 1.39 x 10^{10} BTU, or about 29% as much. A copy of these calculations is on file with the office of Environmental Review.

Source: Bauer-Schweitzer and Glumac and Associates, Inc.

H. GEOTECHNICAL

The project would require excavation below lot 10 to construct foundations for the proposed garage, and below lot 19 to construct the access ramp to the third basement. About 29,000 cubic yards of earth would be removed from the site. Fifteen cubic-yard trucks would be used to remove about 1,200 cubic yards of earth per day, requiring 24 days of hauling. There would be no excavation beneath or within 20 feet of the two towers; the former would be impossible while the latter would destabilize those buildings. Lot 10 excavation would be 25 feet deep, and on lot 19, excavation would be a maximum of 25 feet at the bottom of the ramp. There would be no excavation below grade on lots 18 and 20.

The primary geotechnical impacts of site development relate to the high groundwater table, the presence of clean sands below the water table to depths of 30-34 feet , and the presence of Bay mud and other silty clay which underlie the clean sands to depths of 36-40 feet. The water table is above the level of the proposed foundations. These conditions require dewatering and temporary shoring for excavation of the proposed garage basements. As the underlying sands have high permeability, pumping would be required to dewater the site. Dewatering could cause consolidation of the Bay mud below, which in turn could cause areal settlement that could affect structures in up to a 1/2 block radius of the site depending on the depth of dewatering, the system of dewatering, and attempts at groundwater recharging. /1/ Once built, without mitigation the highest groundwater level could result in hydrostatic uplift which would act on the floor of the third basement, resulting in displacement of proposed and existing buildings.

Existing fill materials could settle due to the load of new construction. These loads could cause differential settlement that could affect the project and existing buildings on and adjacent to the site.

If construction proceeds during or shortly after a heavy rain, erosion, slope instability, and sedimentation on adjacent streets might occur. Slope instability would be detrimental to shoring and underpinning operations intended to safeguard adjacent building foundations. In addition, a high moisture content in the soil would subvert the goals of subgrade preparation which is to provide structural fill on which the proposed buildings could be firmly constructed.

According to the San Francisco Seismic Safety Investigation Report, /2/ the site lies in a zone of potential liquefaction hazard should a major earthquake occur. The report also shows the site to be in an area of potential subsidence hazard. The project would probably be subjected to at least one moderate to severe earthquake during the next 50 years. Danger from fault offset during such a quake is remote; however, strong shaking is likely to occur. Preliminary analysis indicates that the potential for liquefaction of soils underlying the site is low because of soil density. /3/

/1/ For a more detailed explanation of geotechnical concerns, see Don Hillebrandt Associates, Geotechnical Report for the Francisco Place Project, on file with the Office of Environmental Review.

/2/ John A. Blume and Associates, June, 1974.

/3/ Don Hillebrandt Associates, op. cit.

I. COMMUNITY SERVICES

Fire: Conversion from industrial to residential and office uses could decrease fire hazard at the site, because of the removal of highly flammable grains associated with the brewery. However, potential human exposure to fire hazards at the site would be increased. There are adequate mains, hydrants, and waterflow for fire protection on-site. The project would require no additional fire department personnel and equipment. /1/

Police: Crime analysts at the San Francisco Police Department state that night-time light and activity at the site could help reduce street crime. /2/ The Police Department states that the site area is comparatively well-served in terms of patrol services, and that the project would not require additional personnel. /3/ The project would have a security guard and controlled access between office and residential floors. Residential parking garage elevators would not have access to commercial floors, nor would commercial garage elevators and floors have access to residential floors.

Water: Project residents would consume about 200 gallons per dwelling unit per day or 18,600 gallons overall. /4/ The project would require about 600 gallons per day for landscape irrigation. /5/ Water use for the offices would be about 6,000 gallons per day, based on a consumption ratio of 125 gallons per 1,000 square feet for low rise office buildings. /6/ In total, the project would consume about 25,200 gallons of water per day for all uses. As water consumption of the Bauer-Schweitzer factory averages about 37,000 gallons per day, the Water Department does not expect the project to have an impact on the City's ability to supply water. /7/

Sewer: Using estimated factors of sewage generation of 125 gallons per 1,000 sq. ft. of office space, and 200 gallons per dwelling unit per day, /8/ a total of about 25,000 gallons of waste water would be generated per day. This would be channeled to the North Point Sewage Plant for treatment. The project would have no impact on the City's ability to process wastewater as this would be less than the amount of sewage generated by Bauer-Schweitzer. /9/

Solid Waste: During site preparation, the project would generate demolition debris from existing building and subsurface materials. The debris would probably be hauled to a dump site in Burlingame. During occupancy, the project would generate about 980 pounds of solid waste per day, 500 pounds from residences and 480 pounds from offices. /10/ This would amount to about 179 tons annually. Golden Gate Disposal Service would haul trash away from the site. The project would have no impact on the company's ability to dispose of waste. /11/ Of the 1,500 tons of trash removed to the Mountain View dump site daily, the amount added by the project would be less than a tenth of one percent. The amount of garbage city wide is expected to increase 1-2% per year. /12/ A solid waste disposal area for residents and offices would be provided on the second basement level with unloading access via the Francisco Street garage ramp. Unloading operations could be facilitated by use of electric dumpsters. Administration of this arrangement would be the responsibility of the homeowner's association.

/1/ Joseph Sullivan, Chief Support Services, letter dated April 21, 1981.

/2/ Hal Waterman, Planning & Research Division of the Police Department, telephone conversation, April 3, 1981.

/3/ Sergeant James Farrell, Planning & Research Division, San Francisco Police Department, letter dated December 11, 1981.

/4/ City and County of San Francisco, Department of City Planning, Yerba Buena Center: Final Environmental Impact Report, EE 77.220, Certified April 25, 1978, Appendix I.

/5/ Glumac and Associates, Inc.

/6/ Yerba Buena Center, op. cit., Appendix I.

/7/ Ken Wong, Associate Engineer, San Francisco Water Department, telephone conversation, April 4, 1981.

/8/ Yerba Buena Center, op. cit., Appendix E.

/9/ Blaise Cullen, Clean Water Program, telephone conversation, August 8, 1980.

/10/ California Solid Waste Management Board, "Solid Waste Generation Factors in California," Technical Bulletin No. 2, July 8, 1974.

/11/ Fiore Garbarino, Golden Gate Disposal Service, telephone conversation, August 6, 1981.

/12/ "Solid Waste Generation Factors in California," op. cit.

J. FISCAL AND ECONOMIC FACTORS

Taxes: The project would increase property taxes to about $472,000 from about $40,000 or 1,080%. Table 13 below compares the existing and potential taxes, and their distribution across government entities, assuming 1981 rates and proportions prevail in the future.

Table 13
DISTRIBUTION OF PROPERTY TAXES

	EXISTING	PROJECT	NET CHANGE
City and County of San Francisco (85%)	$33,802	$400,941	$367,139
Unified School District (7%)	2,784	33,019	30,235
BART (6.8%)	2,704	32,075	29,371
Community College (1.1%)	437	5,189	4,752
BAAQMD (.1%) /2/	40	472	432
	$ 39,767	$471,696/1/	$431,929

/1/ Based on projected sales of commercial space and market rate units of $37,607,898 plus assessed land value of $1,700,000 x $1.20 tax rate per $100 of value, (Assessor Ducas, San Francisco Tax Assessor's Office, telephone conversation, September 10, 1981).

/2/ Bay Area Air Quality Maintenance District.

SOURCE: Planning Analysis & Development

Costs: Direct costs to the sponsor of the project would be about $34,121,625 including $3,530,000 for land and building costs, $23,409,712 for construction, and $7,181,913 for consultants and project development. /1/

As noted in the community services impact section of this report, the proposed project would not result in the need for any immediate improvement in municipal services. However, public costs of residential development could be assumed to approximate costs of existing development. The approach entails multiplying existing per capita expenditures by the project population of the project. Using this approach and a projected population of 197 residents (93 units x 2.12 people) /2/, the residential portion of the project would theoretically require about $254,000 (1980 dollars) per year in government expenditures. /3/

It is difficult to generalize about how costs for given levels of services would differ between the project and the previous uses on the site. In the 101 Montgomery Final Eir, EE80.26, certified May 7, 1981, it stated that overall costs per unit of service provided (per square foot or per employee) to the new building would be lower than for the existing building. In examining government services provided directly to office buildings, it has been found that short-term costs would grow more slowly than office space. If office space grew 60%, police costs were estimated to grow at 28% and fire costs at 1%. /4/ Discussions with service agency personnel regarding capacity and ability to provide services to that project indicated that existing facilities, equipment, and labor could serve the larger square footages proposed for the site without increases in manpower or equipment. Such discussions do not indicate that thresholds for increasing costs per unit of service would be reached.

The difficulty of estimating costs for the site is further complicated by two factors. The site is not within the Central Business District (CBD) and findings about the downtown may not apply. The project would include residential units, and thus findings about office buildings would not apply to the entire project. Total costs for servicing the site probably would increase because of the increase in floor space and employment.

The net marginal cost (or increase in the deficit) per peak hour Muni ride is $0.4236. /5/ The transportation impact section (p. 60) estimates there would be 134 PM peak transit trips on Muni. Doubling this for AM plus PM peak trips, there would be 268 peak hour Muni trips per day. This increased demand for Muni services would cost $29,516 in 1981-82 dollars. /6/ Because the existing site is vacant it creates no costs for Muni and so the net increase in costs, or deficit, would also be $29,516. This cost estimate includes operator labor, maintenance labor, fuel and power, other direct operating costs, parts, and amortization of incremental vehicles. It does not allocate any incremental facilities costs, nor any incremental supervisory staff costs, although such costs would also be included at some level. /7/

In the 1980-81 budget, 7% of discretionary General Fund revenues were allocated to Muni. Seven percent of the $400,941 in General Fund revenue that would be generated by the proposed project would be about $29,200 in 1983 (assuming a 2% increase in General Fund revenues per year). However, as there is no way to determine how General Fund expenditures would change if the project were not undertaken, it may not be appropriate to compare the costs to the revenues.

Comparison of Changes in Costs and Revenues: On a per service unit basis, the project might increase short-term revenues from the site more than it would increase costs, giving the project a higher revenue to cost ratio than did the uses existing on the site in 1981. However, because of the lack of adequate cost data (e.g. for MUNI impacts) and of the lack of an accepted methodology for opportunity costs, this conclusion is tentative. Also, assuming the development would have an initial beneficial fiscal impact, the benefits would only be temporary, because in the long run revenues from the project would increase at a slower rate than costs, due to Proposition 13 limitations on property tax increases. /8/

Employment: Because Bauer-Schweitzer has ceased operations, 20 manufacturing jobs have been lost. /9/ The project would create about 192 new office jobs /10/ and about 148 person-years of construction work (30 temporary constructions jobs for about three months followed by 80 temporary construction jobs for about 21 months). Thus, there would be a net increase of permanent jobs.

Each additional job due to the project would create more jobs through the multiplier effect as each new employee spends income on goods and services. These expenditures increase demand which in turn would require more new workers to satisfy it. Employers also spend money for business goods and services, such as office furniture to accommodate new employees. These effects ripple through the local economy by having a primary impact (the new job) and seconday impacts (other additional jobs) to supply the demand generated by the original job.

The size of the multiplier effect in the Bay Area has been estimated in the University of California Bay Area Input-Output (I-O) Model, which shows the effect growth in one sector of the economy has on all other sectors. Growth is expressed in sales by sector and can be translated into jobs. Table 14 (p. 88) shows the effect of the project, including the loss of manufacturing jobs and the increase in office jobs. (For purposes of this analysis, the Bauer-Schweitzer office staff are classified as manufacturing employees as that is the sector in which they work). For example, the 20 manufacturing jobs are responsible for creating two jobs in trade (20 x 09710 = 1.9), so two such jobs would be lost due to the elimination of the 20 manufacturing jobs.

The new office jobs due to Francisco Place would be in the FIRE (Finance, Insurance and Real Estate) sector. As Table 14 (p. 88) shows, these jobs would result in 38 government and service jobs, 34 manufacturing jobs, 32 FIRE jobs, 20 trade jobs, 19 transportation, communications and utilities jobs, 16 construction jobs, and 3 agriculture jobs. After subtracting those lost due to the elimination of the 20 Bauer-Schweitzer jobs, there would be a net increase of 146 secondary jobs. When added to the net increase of 172 primary jobs, the total impact of the project on Bay Area regional employment would be 318 new jobs across all sectors of the economy.

As the I-O Model is based on the Bay Area regional economy, employment impacts on San Francisco cannot be isolated in the above analysis. An approach which isolated the employment impacts on San Francisco was used in several San Francisco EIR's /11/ which estimate that 40% of those employed in downtown offices actually live in the City. Assuming this would also be true of office workers at the site, 69 of the new 172 employees would live in the City. The other 103 would live elsewhere in the Bay Area. The impact of these primary jobs can be estimated based on the assumption that each new employee that is a San Francisco resident generates .6 secondary jobs in San Francisco while each new employee that is not a resident of the City generates .13 additional jobs in San Francisco. /12/ This results in 55 new secondary jobs in the City (69 x .6) + (103 x .13) = 55. This cannot be broken down by sector as there is no input-output model applicable to individual municipalities. Furthermore, the secondary employment estimate does not include expenditures by employees which would increase the overall impact. In total, then, an estimate is that the project would result in about 230 new primary and secondary jobs in San Francisco.

Construction: The 148 person-years of construction work over 24 months would average out to 74 construction jobs during a one-year period. Applying the construction multiplier across sectors, these jobs would result in 70 secondary jobs in the Bay Area, 25 of which would be in manufacturing. As construction jobs are temporary, this level of new employment would not be sustained by the Francisco Place project, although other new construction projects could replace demand due to this project.

Table 14

EMPLOYMENT IMPACTS OF THE PROPOSED PROJECT ON BAY AREA JOBS /1/

Employment Sector	Manufacturing Multiplier	FIRE/2/ Multiplier	Lost/3/ Jobs	New/4/ Jobs	Net Change	Construction Multiplier	New Jobs
Agriculture & Primary Processing	.01851	.01366	0	3	+3	.01516	1
Construction	.02041	.08588	0	16	+16	.01899	1
Manufacturing	.33345	.17696	7	34	+27	.34641	25
Transportation, Utilities Communication	.09756	.09976	2	19	+17	.11320	8
Trade	.09710	.10191	2	20	+18	.12501	9
FIRE /2/	.10349	.16717	2	32	+30	.12501	9
Service & Govt. Enterprises	1.4792	.19750	3	38	+35	.22017	16
Total Secondary Employment (Sum of all Sectors)			16	162	+146	70	
Total Primary Employment			20	192	+172		
Grand Total			-36	354	+318		

/1/ Bay Area Input-Output Model, University of California at Berkeley Extension, p.20.

/2/ FIRE: Finance, Insurance and Real Estate.

/3/ Lost Jobs: Manufacturing multiplier x 20.

/4/ New jobs: FIRE multiplier x 192.

Source: Planning Analysis & Development

To estimate the effect of the new construction jobs on City employment, the same method used for permanent employment estimation is applied, except that a higher multiple is used for construction workers compared to office workers, as the former enjoy higher wages. Thus, assuming 40% of the new construction workers live in the City, and that each one of them generates .9 new jobs in the City, and that the 60% who live outside the City generate .33 new jobs in San Francisco, about 110 new jobs would be created in the Bay Area. /13/ This does not take into account new employment due to the expenditures of employers, and therefore is a conservative estimate. However, the construction jobs are temporary, thus their multiplier effect would continue only as long as construction continues.

Housing: Both the office and housing market at which the project would be directed are in the middle price range for new construction. As the site is outside the Central Business District, office rents would be about $22 per square foot per year, compared to $30-$40 for new space in the core. /14/ The average price per square foot of residential units at Francisco Place would be about $210, with an average cost of about $200,000 per unit. Comparable data on other projects in the area average $166,000 per unit at 2120 Stockton and $252,000 per unit at 44 Macondray Lane. /15/

Although the project would be in the middle price range for new construction, it would not be affordable by the average San Francisco household. One method for determining the annual income needed to support a given sales price is to divide the sales price by 2.5. /16/ Thus an annual income of $80,000 would be required to afford the average priced Francisco place condominium ($200,000). /17/ The 1981 median household income in San Francisco is $30,500, which means only half of the households have incomes of $30,500 or more. If the median income is the amount needed for a family to qualify as a moderate income household, an affordable unit would have to be priced below the $200,000 of the market rate units. /18/

The San Francisco Subdivision Code (Section 1341) requires housing projects of 50 units or more to provide a minimum of 10% low and moderate income housing if subsidies are available. The sponsor proposes to provide 12 low and moderate income units on the Mason Street lots or 15% of the 81 market rate units. The sponsor proposes to provide subsidized housing through Section 8 or some other funding program and is working with the Chinese Community Housing Corporation to secure financing and develop legal and ownership provisions to assure the units remain occupied by low and moderate income households. The form of tenure and prices or rental rates for these units have not been determined. If the units are owner-occupied, prices should range between $64,000 and $92,000 depending on the number of bedrooms. /19/

As the cost of construction would be $150 per square foot and the average moderate income unit would be 1,000 sq. ft., the sponsor would, under these conditions, have to subsidize an average of $78,000 per unit or $936,000 overall, unless housing assistance funds could be secured to lessen these costs. When land costs are taken into consideration, the subsidy would have to be increased further.

If the market could bear it, these costs would be spread across the market rate units and office tenants in the project. Using the $936,000 figure and spreading it 60% across the market units $561,600) and 40% ($374,400) across offices to reflect their share of the floor area, there would have to be an $8 per square foot increase in office rentals and $7 per square foot increase in residential sales prices. The office market in this location would not support rents in the range of $30, but the $8 could be applied over several years to reduce the initial costs to tenants. For dwellings, the $7 per square foot subsidy would average about $7,000 per unit. The market study and appraisal for the project estimated the maximum housing cost supportable by the market, (Table 1, p. 18), so it is unlikely any additional cost could be passed on to the market rate units. Thus, $561,600 would have to come out of the estimated profits, if no subsidies are received.

Growth-inducing impacts: The residential units in the project would not have a growth-inducing impact on the City as a whole, even if all the units were occupied by persons new to the City, This is due to the declining population of San Francisco as revealed in preliminary counts of the 1980 Census. Thus, any in-migration due to the project would be more than offset by the greater trend toward out-migration. The project would increase local population by about 197 persons, assuming 2.12 persons per household. /20/ These residents would increase demand for neighborhood services such as theaters, cleaners, groceries, etc., but would not generate enough trade to encourage new commercial facilities.

The land use succession from industrial to office and residential use has occurred or is occuring in central cities across the country. Examples include the Northern Waterfront and South of Market areas in San Francisco, the Soho district south of Houston Street in New York City, and the North End and Waterfront in Boston. Rising production costs in San Francisco combined with obsolete production methods have led Bauer-Schweitzer to decide to cease operations. /21/ The high price obtainable for the land precludes other industries from purchasing the site. As the malting mill is a basic export industry with respect to the City, its closing would have a growth-reducing effect. The estimated 192 new office jobs would have a regional and local growth-inducing impact through the multiplier-effect.

IV. ENVIRONMENTAL IMPACTS

/1/ Francisco Place Venture, telephone conversation, March 18, 1981.

/2/ City and County of San Francisco, Citizen's Housing Task Force Report, July 29, 1981, p. 36, 1980 Census, preliminary count.

/3/ Per capita government expenditures include the following:

General government	$ 103
Public protection	283
Public works, transportation	464
Recreation and culture	64
Health and welfare	373
	$1,287 x 197 = $253,539

/4/ SPUR, Impact of Intensive High Rise Development on San Francisco, 1974, pp. 201,202,214,221. Also, Arthur Anderson, Inc., Downtown Highrise District Cost Revenue Study, 1980, finds that revenues exceeded costs in 1976-77 and 1978-79.

/5/ Bruce Bernhard, "The Marginal Cost of Peak Period Muni Passenger Trips per Unit of Office Space," San Francisco Public Utilities Commission, February, 1981.

The Spear and Main Street Office Building FEIR, (EE80.349, certified February 11, 1982), pp. 59-60 of Comments and Responses, explains the study and is hereby incorporated by reference. The PUC staff has developed new cost information to estimate the additional or marginal costs. The net marginal cost (or increase in the deficit) per additional peak period trip which was $0.3886 in 1980-81 dollars must be inflated by 9% to $0.4236 for 1981-82 dollars.

/6/ 268 peak rides per day x 260 work days per year x $0.4236 cost per ride = $29,516.

/7/ Bruce Bernhard, op. cit.

/8/ 101 Montgomery Street EIR, EE80.26, p. 87, Certified May 7, 1981, based on a study performed by Recht Hausrath and Associates.

/9/ Connie Mohr, Office Manager, Bauer-Schweitzer, telephone conversation, April 7, 1981.

/10/ Based on 48,000 sf of office space and 250 sf per employee.

/11/ 456 Montgomery EIR (EE79.178), certified February 21, 1980; Federal Reserve of San Francisco EIR (EE78.207), certified June 14, 1979; 101 California EIR (EE78.27), certified August 9, 1979; Crocker National Bank EIR (EE78.298), certified July 26, 1979; Pacific Gateway EIR (EE78.61), certified July 26, 1979;

101 Montgomery EIR (EE80.26), certified May 7, 1981.

/12/ Bank of America Data Center EIR, EE74.128, certified August 8, 1975, original source.

/13/ 101 Montgomery EIR, EE80.26, certified May 7, 1981.

/14/ Jim Flack, Flack and Flack, real estate appraisers.

/15/ Ibid.

/16/ Michael Flo, U.S. Department of Housing and Urban Development, telephone conversation , August 6, 1981.

/17/ $200,000 / 2.5 = $80,000, the minimum income needed to afford the average priced unit at $200,000.

/18/ U.S. Department of Housing and Urban Development, Economic and Market Analysis Division. Moderate income households include those with incomes between 80% and 120% of the median income.

/19/ Richard Backer, San Francisco Department of City Planning, telephone conversation, November 27, 1981.

/20/ City and County of San Francisco, Citizen's Housing Task Force Report, op. cit.

/21/ Connie Mohr, Bauer-Schweitzer, Office Manager, telephone conversation, April 7, 1981.

K. SUMMARY OF COMMUNITY CONCERNS

Neighborhood residents expressed a variety of opinions regarding the proposed project. These attitudes ranged from wishing to designate all or part of the site as a City landmark, to wishing to tear down the towers and redevelop the site within the 40-foot height limit, to wishing to reduce anticipated impacts of the proposed project.

Landmark designation was initiated by a neighborhood resident who filed a case report which was approved by the Landmark's Preservation Advisory Board (LPAB) on January 7, 1981 (Resolution No. 204). LPAB voted to designate the entire Bauer-Schweitzer site excluding the silos and iron shed. Subsequently, the City Planning Commission sustained their staff's recommendation to designate only the towers for landmark status (Resolution No. 8865, March 5, 1981). Designation of the Towers was sustained by the Board of Supervisor's Planning and Housing Development Committee on June 1, 1981 (Ordinance No. 292-81, File No. 90-81-4). This was followed by the Mayor's approval on June 5, 1981 (effective July 5, 1981).

People in opposition to preservation of the towers argued that the buildings would exceed the 40-foot height limit and would block views that would otherwise be open. The general membership of the Telegraph Hill Dwellers Association voted not to support the project as the towers would continue to exceed the height limit. Another reason some opposed keeping the towers is that residential light could create a disturbance at night and window glass could create glare during the day.

None of the immediate neighbors around the malting mill oppose keeping the towers and 60 signed a petition in support of the project. A community meeting was held at the Telegraph Hill Neighborhood Center on October 17, 1980. The sponsor presented the project, and neighborhood concerns were expressed regarding curb-cuts, street parking, loading facilities, and traffic. Some residents were concerned about provision of moderate and low income housing on the site, with various individuals supporting and others opposing it. Subsequent community concern was expressed to the Office of Environmental Review regarding neighborhood preference for a stable population at Francisco Place, rather than high turnover and housing speculation.

V. MITIGATION MEASURES

In the course of project planning, design, and coordination, measures have been identified that would reduce or eliminate potential environmental impacts of the proposed project. Some mitigation measures are still under consideration, and some have been rejected. Some of the measures that have been adopted as part of the proposed project are contained in the December 30, 1980 Final Initial Study for the project included in Appendix E, pp. 157-166.

Each mitigation measure and its status are discussed briefly below. Where a measure has been rejected, the reasons for its rejection are also discussed. Rejected measures could be required by the City Planning Commission as a condition of project approval. Where a measure is still under consideration, its implementation would be optional on the part of the project sponsor, architects, or future contractors, unless required by the City as a condition of project approval.

A. LAND USE AND PLANNING CONSIDERATIONS

To help to ensure provision and retention of moderate income units, the sponsor would investigate having the Chinatown Community Housing Corporation, a nonprofit organization, retain equity interest in the low and moderate income units.

B. HISTORIC RESOURCES

The project would involve adaptive reuse of the Bauer-Schweitzer malting towers and one silo. Bauer Schweitzer is one of two barrel malting operations remaining in the United States. The design would maintain an industrial character, although the facades and interiors would be altered. Antique machinery and decorative oven doors would be preserved and kept on-site during project occupancy.

The sponsor agrees to create a film or slide show showing the malting mill facilities and to provide a photo or drawing exhibit depicting historic uses of the site for permanent display within the proposed project.

Should any archeological artifacts be found during project excavation, the Environmental Review Officer and the president of the Landmarks Preservation Advisory Board would be notified. Need for a preconstruction testing program would be determined by the Office of Environmental Review. Unless recommendations from a preconstruction testing program indicate need for retention of the on-going services of a qualified historical archeologist, the San Francisco Office of Environmental Review would make a determination as to the significance of any find, with the assistance of a qualified archeologist and any other experts which might be required. The environmental review officer would then recommend mitigation measures, if necessary, and recommendations would be sent to the State Office of Historic Preservation.

In the event cultural resources are encountered, excavation would be suspended for up to two weeks, to permit inspection and retrieval, if appropriate. Construction is normally recommended by the Office of Environmental Review to be suspended for up to four weeks. The four week suspension period is rejected by the sponsor. The sponsor proposes to minimize construction delay by conducting hand augered borings in sensitive locations under the supervision of an archeologist or other expert. The bores would then be available to the archeologist and to the Office of Environmental Review for evaluation and recommendation. Decision-makers may require suspension for up to four weeks as a condition for approval of the project.

C. VISUAL QUALITY

The railroad track spur, the railroad car frequently parked on Francisco and the abandoned boxcar on lot 18 would be removed. Mechanical and electrical equipment on the roof and north facade of the towers would be removed, and all exterior walls would be trowelled and painted.

The project would provide mid-block, landscaped open space where none now exists. The proposed courtyard design and configuration abuts existing yards adjacent to the site so as to provide the amenity of continuous open space for immediate neighbors. There would be a 4.5 foot side setback along the south property line of the Mason Street units to reduce impacts on the adjacent building. Prior to construction, the sponsor agrees to prune the existing trees in front of the Mason Street lots, to improve the appearance of the street, as requested by the neighbors on this block.

In order to reduce potential glare from the towers, the south facade would have tinted, non-reflective windows where recommended by the mechanical and energy consultants. To reduce potential night-time light annoyance, the sponsor would install no exterior lights above the second story. Daytime glare would be minimized through the use of brown-tinted glass.

Obstruction of long range views could be mitigated by removing the towers and the silo. This was rejected by the sponsor for a number of reasons. Presence of the towers and the silo would help to retain some of the historic fabric of the site as desired by some residents. The towers would be the most conducive structures for adaptive residential use because of their greater building perimeter space compared to the other, bulkier buildings on the site. This perimeter space permits greater access to light and air which are desirable for dwelling units. Further, following the 1906 earthquake, the towers were reinforced with concrete sleeves /1/, making them the most seismically sound structures on the site. The silo would be retained because of its adaptability into a circulation core that could be used by residents in both of the towers.

/1/ Archeo-Tec, Inc., op. cit., p. 21.

D. TRANSPORTATION

Traffic: Two vehicular access/egress points to the project garage would reduce traffic impacts on any one street by dispersing the traffic between Francisco and Mason. Consequently, the service levels on these two streets would be reduced no more than one grade at most, and none would operate at a lower level than "C" (average delays) in the peak hour. The project's driveway locations would also minimize daily traffic on Chestnut which is used by pedestrians who frequent the Telegraph Hill Neighborhood Center.

The sponsor agrees to encourage carpool/vanpool systems in cooperation with RIDES for Bay Area commuters by acting as an intermediary and conducting post-occupancy evaluation of the project's resident and employee needs. The sponsor agrees to set aside carpool/vanpool spaces in the project garage, as needed and to provide a tenant directory to facilitate carpooling or vanpooling. The Homeowner's Association would provide transit and ridesharing information and assistance.

Parking: Reduction of curb cuts and removal of the Southern Pacific spur track would increase on-street parking spaces by about 35. The flexible parking program proposed by the sponsor to be implemented by the homeowner's association would allow the purchase of unwanted parking spaces by the office tenants and neighborhood residents. The evening and weekend use of office parking spaces would also be leased out. The flexible parking program should satisfy parking demands due to the project and would result in new spaces being made available to neighborhood residents during evening and weekend hours. The sponsor agrees to locate bicycle racks in the project garage.

The sponsor agrees to ensure that parking for workers during construction would be provided by the contractor at an off-site, off-street location nearby (probably the Northpoint Garage). The sponsor agrees that trucks hauling materials to and from the site would park entirely on the site whenever possible during loading and unloading activities, to minimize disruption of traffic on surrounding streets.

Transit: The sponsor agrees to post transit routes in prominent locations within the proposed project. The sponsor would investigate having MUNI fast passes sold at the Credit Union on Mason and Francisco since no readily usable outlet would be at the proposed project site.

To minimize the project's impacts on Muni load factors, the sponsor proposes to take measures to encourage the use of non-transit modes of travel such as walking, bicycling and ridesharing among residents and employees. The sponsor agrees to provide secure bicycle parking on the office levels of the parking garage as well as bicycle storage space on the residential level. Walking would be promoted by providing a directory of nearby shopping, restaurants, services and recreational opportunities to all employees and residents through the condominium association. Carpooling and vanpooling would be promoted by the condominium association through RIDES and would provide on-site information and assistance. Vanpool spaces would be set aside in the project garage.

The Muni Five Year Plan suggests that local assessment fees be levied to supplement its farebox and advertising revenues in order to meet its operating costs through 1983. The sponsor does not propose to provide an assessment fee to Muni because the sponsor believes that responsibility for supporting Muni service improvements cannot be quantitatively assessed and that surplus peak-hour capacity in the area would still be available with the project and cumulative downtown development. The project office space would generate trips requiring new service at no more than half the rate of downtown offices because only half of the workers would travel in the peak travel direction or would be aboard at points of maximum loading. Work trips of dwelling unit residents would already be included in the assessment formula applied to downtown office development.

The sponsor agrees to provide "eyebolt fixtures" suitable for suspending Muni trolley wires on the street frontages if recommended by the Muni Planning Department.

Pedestrians: To reduce potential pedestrian-vehicle conflicts, driveway locations are planned to minimize impacts on the most vulnerable groups: children and elderly at the Telegraph Hill Neighborhood Center and students from the Francisco Junior High School. The project would increase traffic less than 5% on Chestnut and Francisco where these facilities are located. To minimize the threat to pedestrian safety near project driveways, warning signals and buzzers would be installed to signal to pedestrians on the street that a vehicle is emerging from the garage.

The project would increase pedestrian movement near the site by about 75%, resulting in more street life favored by some neighbors. In addition, more pedestrian activity could help reduce street crime, according to an analyst at the Police Department.

Loading: Yellow on-street loading spaces would be provided alongside the Francisco driveway and if permitted by the Police Department, in front of the Chestnut Street entrance. On-street loading spaces would be supervised by project personnel to ensure proper use. Provision of electric carts to facilitate loading from the Francisco Street space to the elevators and dumpsters located in the basement would be investigated. In addition, one or two off-street parking spaces with an 11-foot clearance would be provided for panel trucks and delivery vans.

Section 153 of the City Planning Code requires that the project provide one off-street freight loading space with the minimum dimensions of 25 feet in length, 10 feet in width, and 12 feet in vertical clearance. The sponsor rejects this because he wishes to maintain the architectural integrity of the facade and the calculated demand for loading spaces would not exceed that provided by the proposed combination of on-street and off-street spaces. Policies from the Department of City Planning "Guiding Downtown Development," May 1981, require the project to provide two off-street loading spaces of the minimum dimensions of 35 feet in length, 12 feet in width and 14 feet in vertical clearance. The sponsor rejects this for the above mentioned reasons. Nevertheless, decision-makers may require one or the other of these requirements as a condition of project approval.

Building directories and visual aids indicating the location of the freight elevators would be placed in the loading area of the building. This measure would be consistent with proposed off-street loading requirements contained in "Guiding Downtown Development" (p. D-10).

Hauling: During construction, about 29,000 cubic yards of excavated materials and an unknown amount of demolition debris would be hauled from the site. In order to minimize the traffic impact of hauling, the sponsor agrees to meet with community groups, the Department of Public Works Traffic Engineering Section, and the Transportation Policy Group to decide on a truck route that would minimize disturbances.

During the construction period, construction truck movement would be limited to the hours between 9 AM and 3 PM to minimize peak-hour traffic conflicts.

Rerouting: Sidwalk closures would occur for about six to nine months on the south side of Francisco Street; for as much time as possible, a protected walkway would be provided for routing pedestrians around the project construction. Temporary partial street closures necessitated by removal of the railroad spur tracks would be arranged to minimize disruption of traffic. The street closures would be at times and locations approved by the Department of Public Works.

E. AIR QUALITY MITIGATION

The sponsor would require the construction contractor to water down the site twice daily during excavation to reduce air-borne particulate matter by 50%. The sponsor agrees to suspend earthmoving activities during periods of high wind.

As long as they would result in no material delay in project construction, the sponsor agrees to schedule major dust-generating activities during times of low wind, to phase construction so that major earthmoving and demolition activities would occur during periods of maximum soil moisture content (late fall through early spring), and to physically cover storage piles.

During construction, drivers of trucks in loading or unloading queues would turn off their engines when not in use to reduce vehicle emissions.

F. NOISE MITIGATION

The sponsor would include a clause in the construction contract requiring the contractor to use equipment which would meet noise emission standards in the San Francisco Noise Ordinance. Failure to comply with the requirements could result in revocation of the building permit for the project.

The sponsor agrees to the following noise mitigation measures:

1. Limiting the hours of equipment operation from 8 AM to 5 PM.

2. Limiting construction equipment to the minimum required for a particular phase or task.

3. Use of state-of-the-art mufflers, silencers, and noise control features for all equipment.

4. Where there is a choice, selection of the quieter procedures or machines.

5. Eliminating unnecessary warm-up, idling, and engine revving.

These measures could reduce noise levels by about 12 dBA during excavation, 10 dBA during erection, and 13 dBA during carpentry and finishing.

G. ENERGY

The project would use less energy than conservation standard required by the State of California Administrative Code, Title 24.

Conservation measures agreed to by the sponsor include using wall and floor insulation with an R-factor of 19 and thermopane double-glazed windows where specified by the sponsor's mechanical engineer. In addition, two conservation measures are under consideration: using a heat recovery cooling system to complement commercial hot water heating and using a solar-assisted heating system to complement domestic hot water heating.

The sponsor agrees to further investigate the feasibility of a solar-assisted heating system and to design the roof structure and plumbing facilities to accommodate future installation.

The estimated cost of the heat recovery system is about $10,000, while that of the solar system would be about $41,000 including collectors and storage facilities. These prices are in addition to that of the conventional system that would have to be installed. The payback period for the solar system would be 26 years, based on natural gas prices of $.29 per cubic foot, escalated at the rate of 12% per year to account for increases. /1/ The sponsor would continue to evaluate the implementation of these mitigation measures and would make a decision after further design development.

The building operator would be directed to provide the Department of City Planning with one year of monthly energy consumption (natural gas and electricity) data after the building is in normal operation. If consumption exceeds the amount projected in the EIR, the owner/operator would agree to have PG&E or another certified energy audit performed, and to implement those recommended energy conservation measures which have a three year payback.

/1/ Glumac and Associates, Inc. Francisco Place: Mechanical and Electrical Environmental Impact Study, op.cit. Natural gas prices have increased since this estimate was made.

H. GEOTECHNICAL

The sponsor has agreed to follow the recommendations of a California licensed soils engineer regarding detailed excavation and shoring procedures and foundation design. When final grading and foundation plans for the project are available, the soils engineer's report would be submitted to the Bureau of Building Inspection for approval.

Excavation would be accompanied by shoring and underpinning to prevent impacts on adjacent structures. This would be necessary to assure ground stability for adjacent parcels and foundations. Underpinning would extend the depth of existing foundations to the depth of the excavation, and involves building a wall that has strength sufficient to absorb the loads formerly distributed by the foundation to the earth. The permanent foundation wall of the new construction also would perform this function. Structures adjacent to site property lines would be underpinned where footings are less deep than the proposed excavation plus 18 inches of structural fill.

The sponsor's soils engineer recommends the following mitigation measures for consideration in design and installation:

1. Prior to any work, elevation readings and photographs should be taken of adjacent properties. In addition, a review should be made of the probable foundation support of the adjacent buildings to provide reasonable assurance that it would be safe to temporarily remove support from the adjacent foundations.

2. The underpinning operations for a given footing should be performed in at least three stages that stagger the underpinning piers at appropriate intervals to minimize the temporary reduction of support of the existing footings.

3. Underpinning piers should be only a few feet in length and should be at least as wide as the footings they underpin; they should extend to a depth of at least one foot below the level of the footings for the proposed structure.

4. During the excavation of an underpinning pier, loss of ground stability must be prevented. This may require that lagging be installed along the sides and rear of the piers as the excavation proceeds downward, with any void behind the lagging appropriately backfilled.

5. It would be desirable to apply a pre-load (equal to a percentage of the foundation load) to each underpinning segment prior to dry packing. This should be carefully executed since too large a load can be as detrimental as no load at all.

6. The temporary shoring system used at the site must be carefully constructed to avoid loss of ground support for adjacent structures. If conventional soldier piles and lagging are used, casing would probably be required during the installation of them, and would have to be continuously installed as the excavation proceeds downward.

The project would retain a shoring and underpinning contractor who would determine from shoring drawings and on-site inspection which of the mitigations would be required to protect adjacent residences.

If excavation begins during the rainy season, the sponsor has agreed to abide by the recommendation of the soils engineer to flatten slopes created during excavation to ensure that they do not lose support capability. In addition, the sponsor would not excavate within 20 feet of the existing tower.

The sponsor agrees to undertake additional geotechnical studies before the design for the proposed basement garages is further refined. The studies will include more borings, additional labratory tests of bore samples, and detailed soil and foundation engineering studies to evaluate the following:

- dewatering, shoring and excavation requirements
- specific foundation support design criteria and the estimated settlements of foundations
- lateral load criteria for permanent basement walls
- design criteria for the lower level basement slabs.

The foundation support system for the proposed structures would have to extend through Bay mud and other silty clays. Consequently, the hydrostactic pressure of ground water may requre that uplift piers or piles be incorporated into the foundation design to resist unbalanced hydrostatic pressures. The sponsor agrees to authorize further geotechnical and design studies and agrees to mitigate this potential impact on new and existing structures if recommended by the studies.

I. COMMUNITY SERVICES

Fire: The sponsor proposes a life safety program to reduce fire hazards for future residents of the project. The program would include:

- fire containment by construction materials

- fire detection

- occupant notification (by means of an automatic smoke detector alarm)

- automatic fire suppression (sprinkler system)

- multiple escape routes, including a silo-enclosed circulation core between the towers and a smoke tower within the Francisco elevation

- Fire Department acccess and facilities

- monitoring of the automatic suppression system by means of electrical signals transmitted to a constantly attended location. This would assure a constant state of readiness and instant summoning of the Fire Department by a trained operator.

This level of fire safety is not normally provided in low rise structures due to the cost involved, but it is economically feasible for the mix of building types proposed by the sponsor. For a full discussion of life safety systems, refer to the report on file with the Office of Environmental Review, entitled "Proposed Fire Protection Provisions for Francisco Place," by Rolf Jensen and Associates, November 7, 1980.

Police: The project would have a security guard equipped with radio communication which could help reduce street crime and burglaries. The sponsor would consider an electronic monitoring system for the public, office and garage areas of the project.

Water and Sewer: The project would incorporate low-flow faucet and toilet fixtures to reduce water consumption and wastewater volume.

Solid Waste: The project sponsor would provide containers to building tenants for collection and storage of recyclable solid wastes, such as glass, metal, computer cards, and newspapers.

VI. SIGNIFICANT ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED IF THE PROJECT IS IMPLEMENTED

A. Land Use: The project would result in housing and offices that could preclude any other use of the site for at least 50 years.

B. Historic Resources: The project would involve the removal of some of the buildings of one of the last remaining barrel malting mills west of the Mississippi. Excavation for the underground garages could impact remains of Meigg's Sawmill and houses identified on the 1852 and 1857 Coast Survey Maps.

C. Visual Quality: The project would increase night-time light, as glass windows would account for most of the new exterior surfaces for the towers, where few windows now exist. Adpative reuse of the towers would continue to block long range views from Telegraph Hill.

D. Traffic: The project would generate about 600 additional vehicle trips per day with about 110 occurring in the peak hour. The project would increase daily traffic on streets near the site from 2-23% over levels that would otherwise prevail by 1983. The greatest impact would occur on Francisco, east of Mason, where traffic would increase to 2,030 vehicles per day, up from 1,650 trips, or 23%. When the cumulative impact of this and other projects near the site are taken into consideration, the impact on Francisco would be a 65% increase in traffic over the levels that would otherwise exist in 1983, or about 70% higher than 1981 levels. Traffic levels of service would not be reduced below the C level (average delays) except immediately following dismissal of Francisco Junior High School, when the project could cause traffic service levels to deteriorate from C/D to the D level (long delays) on Francisco at Powell.

E. Noise: Construction activity associated with the project would produce increased noise levels. These expected increases are detailed in Table 11 (p. 74).

VII. ALTERNATIVES TO THE PROPOSED PROJECT /1/

A. NO PROJECT

If the project were not built, none of the impacts associated with it would occur. Industrial buildings would not be removed from the site and the parking lot on Mason Street would remain. Bauer-Schweitzer has ceased operations, and would have to remove the railroad spur as a condition of their revocable encroachment permit. The sponsor would seek a purchaser for the site, and any subsequent development would have to comply with the City Planning Code. The site could continue in industrial use so long as non-complying activities are not "enlarged, intensified or extended" according to Section 181(a) of the City Planning Code.

The reasons Bauer-Schweitzer went out of business are: antiquated physical plant, small size, out-moded industrial processes, and an inconvenient and costly location regarding inputs to production. The inability of the plant to store large lots of barley used in the malting process means Bauer-Schweitzer has been unable to purchase this basic input at competitive prices. Consequently, the business is no longer profitable. Aside from the zoning restrictions in the immediate area, Bauer-Schweitzer could not expand to acquire barley storage facilities nearby due to high land costs in North Beach. /2/

/1/ If decision makers determine that a rejected alternative is a more appropriate use for the site than the proposed project, that alternative could be approved.

/2/ Connie Mohr, Office Manager, Bauer-Schweitzer, telephone conversation, April 7, 1981.

B. INDUSTRIAL REUSE

Site and Land Use: The Bauer-Schweitzer malting mill is an allowable or principal land use in an M-1 (Light Industrial) zone, and could be reused for other industrial activities that are also allowed as principal uses in M-1 zones, according to Section 182(b) of the City Planning Code. Although such a conversion would also be considered a non-conforming use, light manufacturing, industrial research, chemical research and experimental laboratories could exist in an R district under these circumstances. If an alternative industrial use for the site were found, there could be little or no change to the physical plant other than demolition, as the towers are non-complying structures, and no rear yard open space would be required. Any physical changes could not increase the discrepancy between existing conditions on the site and the required standards for new construction set forth in the City Planning Code (see Section 188). Consequently, there probably would be no excavation associated with industrial reuse. The Mason Street lots could not be developed industrially, and would either remain as they are, or would be developed with housing as in the proposed project. if these units were developed by the sponsor, the twelve units would be sold at market rates.

Historic Resources: A new industrial use would probably leave the building exteriors intact, although changes that bring the facilities closer to compliance with the Planning Code would be allowed. Exterior changes such as adding windows to the tower would be allowable, and the Chestnut Street building and facade could be altered if needed. Since the towers have been designated as landmarks, any change to these structures would have to receive a Certificate of Appropriateness. Unless another maltster is found, the antique machinery and other industrial artifacts would probably be removed.

Visual Quality The industrial appearance of the towers probably would not be dramatically changed for another industrial use. Modern light industry is typically served by truck rather than rail, so the railroad spur and car would probably be removed as required by Bauer-Schweitzer's revocable permit. However, a new industrial user could apply for a new revocable permit. There would be no landscaped courtyards, as in the proposed plan, but the Mason Street lots would have open space, landscape and streetscape improvements if they were developed for residential use. An industrial use with more employees or greater frequency of shipping and receiving could lower some residents' sense of neighborhood quality. On the other hand, a new industrial use might not result in as much increase in night time lighting and resultant glare as the proposed project. A greater sense of privacy in the neighborhood could be maintained in industrial reuse, especially if fewer windows are provided than with the proposed project.

Transportation: An alternative industrial use at the site could result in more vehicular and pedestrian trips than Bauer-Schweitzer because the malting mill had a very small staff. For example, modern light industry employs about one worker per 500 square feet. /1/ The 45,000 square foot mill site, considering the ground floor alone, could accommodate about 90 workers. Bauer-Schweitzer employed 20 people. Whether a new industry with more employees would constitute an intensification of use would have to be determined by the City Planning Commission in deciding whether to allow the conversion.

Vehicle trips associated with any industrial use would tend to be more concentrated during peak periods than trips associated with a mixed office and residential use. Thus, although the proposed project could generate more trips, these impacts would be distributed over time.

As it is impossible to predict the type of industrial use that could be attracted to the Bauer-Schweitzer site and physical plant, the number of new employees, trips and parking impacts cannot be quantified, nor can secondary traffic impacts such as noise and air quality.

Energy and Air Quality: Although a new industrial use at the site would consume more energy than the proposed project, it is difficult to predict consumption in relation to Bauer-Schweitzer without knowing what kind of operation would be mounted. However, as the malting mill used a great deal of heat energy for drying malt, and as the equipment was old and inefficient, there could be a reduction in energy consumption under this alternative. Light industry is often called "clean industry" because of low levels of fossil fuel consumption. Similarly, air quality impacts due to industrial process would probably be less than under previous industrial conditions.

As this alternative could result in more vehicle trips per day and more cruising to find parking than under existing conditions, local air quality could be worse than existing conditions due to vehicle emissions. The change would probably not measurably contribute to air quality standards violations.

Economic Factors: While high land value was beneficial to Bauer-Schweitzer in the sale of its site, it is not economically rational for another industry to locate at the site as industry seeks to minimize the cost of inputs to production, including land, labor and capital. Industry must compete with other potential land uses such as residential and commercial, which bid up the price of land. For example, the site is worth about $100 per square foot for residential and commercial development. The price industry is willing to pay for land would be very high at $30 per square foot. /2/ Thus residential and commercial uses have out-bid any other land use for the right to occupy the site.

Similarly, industry seeks to minimize transportation costs measured in terms of time and distance to markets. To the extent that location, travel time and transportation costs decreased Bauer-Schweitzer's profitability, so too would it reduce many other types of firms' profitability. For most modern industries, shipments by rail or truck would not be as convenient in North Beach as in areas such as south of Market Street where there is direct access to freeways and railroad yards.

The dominant form of production today is spatially organized on a horizontal plane, unlike the vertical use of space inherent in the Bauer-Schweitzer physical plant. The reasons for this are that horizontal organization is easily expanded, machinery and equipment are more easily moved or replaced, and one-story construction is cheaper on a square foot basis than multi-story construction. Shipping and receiving also calls for expanses of horizontal space. Some of these factors work against conversion of the Bauer-Schweitzer site and physical plant to another industry.

/1/ Yerba Buena Center Final EIR, EE77.220, certified, April 25, 1978, Appendices, p. 29.

/2/ Jim Flack, Flack & Flack Real Estate Appraisers, telephone conversation, August 6, 1981.

C. REMOVAL OF THE TOWERS

Site and Land Use: If the two towers and all of the silos were removed from the site, the project would not exceed the height limit, as new construction could not be more than 40 feet high. Removal of the towers and the silos would result in more demolition and excavation, and more parking could be provided once these were gone. The amount and duration of demolition and excavation has not been estimated.

Under this alternative, the site would be developed into 115 dwelling units and 48,000 square feet of offices. This would be 22 units or about 24% more than under the proposed project. Keeping a 15% subsidy-to-market-unit ratio, there would be 15 low /1/ and moderate income units on the Mason Street site. Both market and subsidy units under this alternative would be smaller than under the proposed plan, but the overall square footage of construction would be greater, i.e., about 96,000 square feet of residential, compared to about 90,100 under the proposed plan. The smaller units would be cheaper, but more costly on a per square foot basis because of threshold construction costs. Threshold construction costs are costs that must be incurred regardless of the size of the unit, such as providing plumbing and kitchen facilities. Such a project would be similar to the new condominiums on the north side of Francisco and on Vandewater Street.

Historic Resources: Under this alternative, all of the malting mill buildings including the silos would be demolished and replaced with new construction. Antique machinery and other industrial artifacts would be saved and could be kept on site. As the underground garage would extend across the entire site, excavation could impact any remains of Meiggs' Sawmill which might be beneath the tower foundations. Any development scheme that involves removal of the towers would have to be delayed for up to 360 days because of their landmark status (section 1006.6(b) of the City Planning Code).

Visual Quality: Unless a Conditional Use permit were obtained, a project of all new construction would have to have 25% rear yard open space. One story of offices below and one at grade could be provided with three residential stories above. Such a project would be similar in scale, materials, color and detail to the condominiums on the north side of Francisco and on Vandewater Street. The sponsor would pursue a design that was compatible with these buildings by using flat roofs, bay windows and wood or stucco exteriors.

Removal of the towers and the silo would reduce the length and duration of shadows that fall on Francisco and the new condominiums across from the site. In addition, views of the Bay and Golden Gate Bridge would be more accessible from lower Telegraph Hill. Removal of the towers and silos would eliminate two of the few structures that exceed the low-rise skyline of this part of North Beach.

Transportation: A comparison of transportation impacts of this alternative and the proposed project is presented in Table 15 (p. 110). There would be about a 10% increase in both daily and peak hour trips. When broken down by mode, there would be about a 10% increase in daily and peak hour auto trips, and a 10% increase in daily and peak hour MUNI trips compared to the proposed project.

Traffic would be distributed to streets in the same way as the proposed project, as the driveways on Francisco and Mason would be provided. There would be no difference in service levels over time due to this alternative compared to the proposed project, as analysis for the proposed project increased vehicular traffic by 30% to estimate worst-case conditions, while this alternative would increase daily and peak hour trips by about 10%.

Parking: Under this alternative, the project would have to supply 96 commercial spaces and 115 residential spaces, for a total of 211. This could be done as removal of the towers would allow excavation there, which would not be possible under the proposed plan.

Pedestrians: A 24% increase in units over that of the proposed plan would increase pedestrian-vehicle conflicts by less than 5%, and service levels would remain the same.

Air Quality: More vehicle trips associated with this alternative could impact air quality to a greater extent than the proposed project, but the increase would not contribute measurably to air quality standards violations.

Energy: A project with all new construction would have to meet the energy conservation standards of the State of California, and could substantially improve upon them. For example, insulation materials with an R-19 factor and double pane windows would be used, and the sponsor would explore solar energy applications.

Economic Factors: This alternative would offer more, though smaller, units and would contribute to solving the City's housing problem to a greater extent than the proposed project. Smaller units would be less expensive than those proposed by the sponsor, making them affordable to more households, although purchasers would get less square feet of area per dollar spent than under the proposed plan. Construction costs, unit price, total project value and the fiscal impact have not been estimated for this alternative.

/1/ This is based on 100 market rate units; 15% of 100 equals 15 subsidy units.

TABLE 15

TRANSPORTATION IMPACTS OF ALTERNATIVE C

Scenario	Generator	Trip Rate	% Peak Hour	Total Daily Trips	Peak Hour Trips	Daily Modal Split		Peak Hour Modal Split	
						Auto/1/	MUNI/2/	Auto/3/	MUNI/4/
Project	93 units	7/du	17.5%	650	114	260	325	46	65
	48,000 sf	17.5/	20%	840	168	336	420	59	84
	office	1000 sf		1,490	282	596	745	105	149
Alternative C	115 units	7/du	17.5%	805	141	322	403	56	81
	48,000 sf	17.5/	20%	840	168	336	420	59	84
	office	1000 sf		1,645	309	658	823	115	165

/1/ Assumes 40% auto drivers, 10% auto passengers.

/2/ Assumes 50% MUNI passengers.

/3/ Assumes 17.5% of daily auto trips occur in the peak hour.

/4/ Assumes 20% of daily MUNI trips occur in the peak hour.

SOURCE: PRC Voorhees

D. PRESERVATION ALTERNATIVE

Some members of the City Planning Commission and some members of the community feel that the entire site is a landmark, and that project planning should include consideration of preserving more than the towers and one silo. Candidates for preservation are the other silos and the Chestnut Street buildings. Appendix A (pp. 132-136) of this report present plans and elevations of the existing structures.

Chestnut Street Buildings: The project architects and engineers explored the spatial characteristics of these buildings to evaluate their adaptability to housing. Their finding was that neither building had enough perimeter wall to make adequate residences. The former boiler and engine room is almost square, measuring about 53 feet wide and 67 feet deep. On both its east and west sides, this two-story building abuts blank walls, so no light could enter. Although light could enter from the north and south, the usable depth of the buildings where light could enter would be limited to about 20 feet on either end. In addition, some of the street frontages where light could enter would necessarily be taken up in the entries and stairs.

The larger office and warehouse building on Chestnut is 120 feet long and 53 feet wide. Usable space would include that section of the building fronting on Chestnut Street and extending to the depth of one room, and the rear section adjacent to the malt drums and silos. To make maximum use of the rear portion of this building, the silos would have to be removed so they would not block light and air. Reuse of these buildings for dwelling units or parking in the basement would be constrained by the wide column grid which is based on a 17 foot module. Because of the columns there would be large size rooms, or else the columns would be visible and fall in living areas or corridors. Parking is usually provided within a 9 x 20 foot space, which would result in awkward maneuvering and wasted space given the 17 foot column grid. /3/

Silos: In total, there are six potentially reusable silos constructed of riveted steel plate bolted to concrete foundations. They are 27 feet wide, 70 feet tall and could accommodate six floors. The project architects explored the spatial possibilities of converting them to other uses, including residences and hotel rooms.

In order to be used for living activities, holes would have to be cut for light and air and an earthquake-resistant structure would have to be installed for horizontal force resistance. Cutting holes would change the appearance of the silos, and would itself require structural reinforcement as the inherent vertical support capability of the tubes would be eliminated. Structural reinforcement coupled with earthquake and fireproofing would reduce the usable areas to about 450 square feet per floor.

The architects considered using two floors for one unit, but felt that the proportion of space lost to stairs did not justify such a design. Next, a scheme interconnecting silos for larger units was explored. The space between the silos could be used for circulation, and the silo adjacent to both towers (there is only one) could be used for an elevator core serving the silos and the towers. Under this scheme, four silos could be used without the need for structural additions. Each floor could contain one unit of 1,800 square feet plus the elevator/circulation core, but one large unit per floor was rejected by the sponsor as too expensive and risky to market, compared to smaller, conventional units. Alternatively, each floor could have one studio and one 1,000 square foot unit that extends across two silos, plus the circulation core. The sponsor rejected all of these residential alternatives for the following reasons:

(a) Reuse of all of the silos would reduce the utility of renovating the towers, as all units in the east tower would have southern exposure to light and air blocked.

(b) In the opinion of the structural engineer /1/ any scheme to reuse the silos for residences should be undertaken by first dismantling them into small, easily moved sections, storing them during construction and reinstalling some of them as non-structural exterior cladding over new silos built with adequate structural support and fireproofing. This would not preserve the silos, but would reconstruct them.

(c) Building a facsimile would require a Zoning Map change and Conditional Use authorization to exceed the height limit, which the sponsor feels is untenable in this neighborhood of San Francisco.

(d) Market acceptance is unknown for silo units which would have to be priced in the $360,000 - $540,000 range, according to the sponsor's market analysis. Despite the success of the "Quaker" Hilton /2/, the difficulty of furniture placement in round rooms and the loss of area if the rooms were squared makes their market acceptance uncertain in the opinion of the sponsor. The novelty appeal of round hotel rooms may not be transferable to dwelling units, which are used differently.

The architects and engineers assert that the best alternative among schemes to reuse the silos is to keep one for the elevator core serving the towers as with the proposed project. The 24-foot interior diameter, including fire and earthquake proofing, would be suitable for this purpose and the cost of doing so would be significantly less than the other alternatives. Other persons have suggested converting the silos to non-residential use such as a restaurant, but this was rejected by the sponsor as other uses could require Conditional Use permits and would not use the entire area of each silo, even though each silo would have to be upgraded.

Finally, members of the community have suggested keeping one or more of the silos as a monument, with no practical use, or building a facsimile of them if rehabilitation costs are not too high. The sponsor rejects these alternatives as retention of more than one would encroach on the rear yard and open space, block views, light and air from the towers, and interfere with the subterranean parking.

Although the historic and novel values of the silos and Chestnut Street buildings were recognized and architectural consultants developed various schematic drawings for their adaptive reuse, no reuse schemes were found that satisfied the requirements of the sponsor, land use controls, design constraints, and financial feasibility.

The sponsor further proposes to demolish these buildings because almost all of the parking for the project would be provided below. Underground parking on the site is economically viable up to 30 feet below grade, but in order to excavate, existing buildings would have to be removed. As excavating under the towers would be prohibitively expensive if not physically impossible, no parking is planned there. For the rest of the site, garage construction costs would be more than $15,000 per car. Excavation below the Chestnut Street buildings could increase this to $30,000 /4/ which is considered unrealistic and unfinancable. /5/ To do without parking under most of the site would, on the other hand, greatly impact the immediate neighbors who feel parking is already a severe problem in North Beach. Any reduction in parking would require a variance. If there were no parking beneath the Chestnut Street buildings, about 100 cars could be accommodated on two levels, assuming the silos are removed, where about 191 are proposed.

/1/ GFDS Engineers, written communication to KAB Designs, March 9, 1981.

/2/ A Quaker Oats plant in Akron, Ohio, that involved conversion of 101 concrete silos (24-foot diameter) to hotel rooms.

/3/ Backen, Arrigoni & Ross, Pierre Zetterberg, telephone conversation, August 5, 1981.

/4/ Doug Curtis, C. M. Peletz, construction cost estimates.

/5/ Jim Flack, Flack & Flack, real estate appraiser.

E. ALL RESIDENTIAL

Site and Land Use: Under this alternative, two scenarios have been investigated. One would be to develop this site with 131 units, the maximum allowable within RC-3 zones; the second would be 261 units, the maximum allowable with a Planned Unit Development Conditional Use authorization. Both scenarios would include the towers and the four proposed buildings, as with the proposed project. Neither scenario would include any office space or other use.

If residential use was extended throughout the entry level of the project, about 116,000 square feet (net) of interior space would be usable for dwelling units. The 131 units developable in an RC-3 zone would average about 885 square feet per unit. This would be broken down into some combination of studios at about 450 square feet, one bedroom units at about 650 square feet, and two-bedroom units at about 1,250 square feet each. Keeping the 15% subsidy-to-market rate unit ratio, this alternative would result in 17 /1/ low and moderate income units. This alternative would result in a total of 38 more dwelling units (including five more low to moderate income units), and 48,000 square feet less of office space, than the proposed project. Parking would be provided at the rate of one space per dwelling, or 131 parking spaces, about 60 less than the proposed project. Parking would be distributed between two levels below grade.

The 261 units allowable with a Planned Unit Development CU authorization would average about 444 square feet per unit, which would be about the same size as the studio units in the proposed project. Unit sizes could be increased if less rear yard space and private open space were provided. Keeping the same 15% subsidy-to-market unit ratio, 34 low and moderate income units would be provided. If parking were provided at the rate of one space per unit, three basement levels of 87 spaces each would be provided for a total of 261 spaces. This would include parking where the entry level office space is located in the proposed project. This scenario would result in 168 more dwelling units, 21 more low and moderate income units, 70 more parking spaces, and 48,000 square feet less office space than the proposed project.

This alternative would result in a change from an industrial use to an entirely residential use rather than a change from an industrial use to a commercial-residential mixed use, as under the proposed project. The increase in residents under this alternative could result in a higher level of night-time activity and street life, and a lower level of daytime use and activity.

Historic Resources: The impact on historic resources would be essentially the same as under the proposed project, although less excavation would probably occur with the 131 unit scenario because only two basement levels of parking would be needed.

Visual: The visual impact of this alternative would be similar to that of the proposed project. However, street level views would be of residences rather than offices. Night-time lighting would increase due to the increase in dwelling units. If a different project design was chosen to optimize the amount of dwelling unit space there could be a decrease in the amount of interior yard and private balcony space. With 261 units, there would probably be even less exterior yard space and balcony space in order to maximize the residential square footage. The increase in units would probably result in greater glare impact and night-time lighting due to the greater number of dwelling units.

Transportation and Air Quality: Table 16 (p. 116) presents the traffic and transit impacts of this alternative in comparison to the proposed project. With 131 units, total daily trips would be 43% less and peak trips would be 47% less than with the proposed project. With 261 units, total daily trips would be 12% less and peak hour trips 19% less than with the proposed project. However, residential trips tend to occur in a more homogeneous time-frame and directional distribution than would occur with a mixed use project. For example, morning peak hour trips would tend toward the downtown direction as residents make their work trips.

Under this alternative, parking would be provided at no more than one space per unit and no flexible parking use program would be implemented. With 261 units, all three parking levels would be utilized to provide one space per unit. With 131 units, the sponsor would avoid the added expense of a third basement level and provide parking on two levels only.

The difference in vehicle trips expected with this alternative would impact air quality to a lesser extent than the proposed project. However, these differences would not measurably affect the frequency of air quality standards violations.

Energy: This alternative would result in an increase of electricity consumption for residential space heating and an increase of natural gas consumption for hot water heating. This would be offset by a decrease in gas consumption for the proposed project's office space heating. Electrical demand would decrease between the office hours of 8:30 AM to 6 PM and increase between the hours of 6 to 8:30 AM and 6 to 11 PM, in comparison to the proposed project.

Economic Factors: This alternative would result in more housing than the proposed project. However, 192 new office jobs would not be created and their secondary effects would not occur. Demand for commercial space in the area would not be met. With 261 units, the average unit would be considerably smaller than those under the proposed project, and therefore less expensive. However, initial construction costs would remain and the price per square foot would be higher than under the proposed project. The scenario has been rejected because the sponsor feels that there is an uncertain market for studio units and because of the greater returns expected by the sponsor from office rentals. The scenario with 131 units has been rejected because it would be less profitable than the proposed project.

/1/ 114 market rate units x 15% = 17 subsidy units, or 131 overall.

TABLE 16

TRANSPORTATION IMPACTS OF ALTERNATIVE E

						Daily Modal Split		Peak Hour Modal Split	
Scenario	Generator	Trip Rate	Peak Hour	Total Daily Trips	Peak Hour Trips	Auto/1/	MUNI/2/	Auto/3/	MUNI/4
Project	93 units	7/du	17.5%	650	114	260	325	46	65
	48,000 sf office	17.5/ 1000 sf	20.0%	840	168	336	420	59	84
				1,490	282	596	745	105	149
RC-3	131 units	6.5/du /5/	17.5%	852	149	341	426	60	85
PUD CU	261 units	5/du /5/	17.5%	1,305	228	522	653	91	131

/1/ Assumes 40 % auto drivers, 10% auto passengers.

/2/ Assumes 50% MUNI passengers.

/3/ Assumes 17.5% of daily auto trips occur in the peak hour.

/4/ Assumes 20% of daily MUNI trips occur in the peak hour.

/5/ Lower generation rates are due to the smaller average size of units.

SOURCE: PRC Voorhees

F. MAXIMUM DEVELOPMENT

Land Use: If allowable uses for the site were each maximized and a Conditional Use permit was obtained to allow office space above the first level, the project could be developed with 188,992 square feet of commercial space and 131 dwelling units. /1/ This would be an increase of about 300% in office space and a 41% increase in housing, compared to the preferred plan. As in the proposed plan, about 15% of the market rate units would be set aside for moderate income households. As 131 units is the maximum allowable, there would be 17 subsidy units, or five more than under the proposed plan. Parking would be provided at the rate of one per dwelling and one per 500 square feet of occupied office area, for a total of 509 spaces. /2/

To accommodate this amount of parking on the site would require six floors. As housing would have to be provided at the first level above grade, and about three and a half full floors would be required to accommodate the office space, at least nine sub-basements would be required in all. As this would be extremely costly and hazardous (see below) the sponsor would probably seek an off-site location for the office parking, or seek a variance to be exempted from providing office parking.

The housing under this alternative would consist of smaller units than the proposed plan, as a greater number of dwellings would have to fit within the same building envelope. That is, the tower and silo would be retained, and the rest of the site area would be limited to 40 feet in height. In addition, the 25% rear yard open space requirement for RC-3 zones would still have to be satisfied, so ground coverage would be similar to the proposed plan. If the towers were not retained under the alternative, the 131 units would have to be even smaller, as the building envelope would be reduced.

Historic Resources: If all 509 parking spaces were satisfied on-site, the needed excavation would probably impact any remains of Meiggs' Sawmill and other historic resources that may be under the site. If parking were located off-site, the office levels would involve excavation to depths of more than 30 feet and would have the same probability of impacting historic remains as the proposed project. Similar mitigations would be proposed. Removal of the tower and excavation beneath it would impact all remains of the sawmill if any are present beneath the site.

Visual Quality and Urban Design: Although the same amount of mid-block open space would be provided as under the proposed alternative, residents in the 38 additional units would also use the facility. More balconies and patios would be required to satisfy open space requirements, which could result in less outdoor space per unit than under the proposed plan, and less privacy on balconies and in the common area open space. The additional 564 employees in the additional 141,000 square feet of office space (one employee per 250 sq.ft) could affect neighborhood quality by increasing daytime activity near the site.

Transportation and Air Quality: Table 17 (below) compares the traffic and transit impacts of this alternative to the proposed project. Total daily trips to the site would increase to 4,159 from 1,490, or 2,669 (179%), most of it due to the increase in office space. Peak hour trips would increase to 728 from 282, or 446 (158%). Vehicle trips would increase to 1,664 from 596, or 1,068 (179%) daily. Peak hour vehicle trips would increase to 292 from 105, or 187 (178%). Peak hour MUNI ridership would increase to 416 from 149, or 267 trips (179%).

TABLE 17
TRANSPORTATION IMPACTS OF ALTERNATIVE E

						Daily Modal Split		Peak Hour Modal Split	
Scenario	Generator	Trip Rate	% Peak Hour	Total Daily Trips	Peak Hour Trips	Auto/1/	MUNI/2/	Auto/3/	MUNI/
Project	93 units	7/du	17.5%	650	114	260	325	46	65
	48,000	17.5/	20.0%	840	168	336	420	59	84
	sf office	1000 sf		1,490	282	596	745	105	149
Maximum	131 units	6.5/du /5/	17.5%	852	149	341	426	60	85
Development	188,992	17. /5/	20.0%	3,307	579	1,323	1,654	232	331
	sf office	1000 sf		4,159	728	1,664	2,080	292	416

/1/ Assumes 40% auto drivers, 10% auto passengers.

/2/ Assumes 50% MUNI passengers.

/3/ Assumes 17.5% of daily auto trips occur in the peak hour.

/4/ Assumes 20% of daily MUNI trips occur in the peak hour.

/5/ Lower generation rates are due to the smaller average size of units.

SOURCE: PRC Voorhees

Increased traffic volume could decrease service levels on adjacent streets. The increased traffic volumes would noticably increase noise levels near the site, and measurably increase carbon monoxide levels within two blocks of the site, but probably would not result in additional air quality standard violations.

The 331 office-generated MUNI trips that would be travelling in the peak direction during the peak hour (4:30 - 5:30 PM) would decrease MUNI's reserve capacity of about 660 spaces by 50%. The line that is over capacity, the 15-Third, would be overloaded with an additional 96 peak hour riders. /3/

Energy: The estimated electrical consumption for the proposed project is 297,000 KWH/month. This alternative would add an additional 125,400 KWH/month or about 42% more. Gas consumption for the proposed project is about 1,008 BTU/sf/month or about 1.3×10^8 total BTU's per month. This alternative would add about 3.8×10^8 total BTU's per month or about 292% more. Nitrogen oxides would increase by .44 lbs./day or 102% over the proposed project. The increase in residential units associated with maximum development would heighten electrical demand between 6-8:30 AM and 6-11 PM. The additional office space would heighten electricity demand between 8:30 AM and 6 PM.

Geotechnical: Nine sub-basements would require excavation to depths of about 90 feet, which is untenable as only four stories of housing and three and a half stories of office would be supported by this. This depth of excavation would require extensive shoring, underpining and dewatering. Slope instability would require extending excavation more than 20 feet away from the towers, thereby increasing the number of levels that would be required to accommodate the 509 parking spaces. The greater foundation depth would tend to induce consolidation of Bay muds with resultant areal settlement and displacement of buildings. Pressure on basement floors due to hydrostatic up-lift would induce cracks and could cause seepage. Increased building loads on the foundations would increase the chance for differential settlement affecting both the project and adjacent buildings. There would be greater danger to adjacent foundation walls than under the proposed project, and increased liability for the contractor and the sponsor which could cause the latter to seek an alternative parking site or a variance to decrease the amount of parking.

Community Services: This alternative would result in greater impacts on community services than would the proposed plan, but additional personnel and capital expenditures would not be expected.

Economic Factors: This alternative would supply 38 more housing units than the preferred alternative. This alternative would create 564 more jobs that the preferred project or 756 jobs altogether. If the City housing formula is applied to the additional office space, a demand for 168 units would be created by the project. /4/ This would be 37 more than the amount of dwelling units provided.

The increase in office jobs would increase secondary employment due to the project. Using the multipliers shown in Table 14 (p.88) about 636 secondary secondary jobs would be created, 162 more than the preferred plan. A total effect of 1,392 new jobs across all sectors of the economy would be created, 1,038 more than the preferred plan. Payroll and business tax receipts would also increase due to this alternative.

The sponsor rejects this alternative because the required parking spaces cannot be provided on site and because an alternative parking site is not available and under control of the sponsor. The excavation is regarded by the sponsor to be both technically and financially prohibitive. In the sponsor's view, there would be intense neighborhood opposition to the traffic, parking, noise and neighborhood quality impacts of this alternative.

/1/ 131 units is from 132 units allowable in an RC-4 zone (one per 400 sf) minus one, (Section 209.1(k) of the City Planning Code); office maximum is based on 52,498 sq.ft. of site area X 3.6 FAR = 188,992 (Table 1, Section 124 of the City Planning Code).

/2/ Parking would be 131 for residences plus 188,992/500 sq.ft. = 378, for a total of 509 spaces.

/3/ Based on the line-by-line analysis of MUNI data provided in Guidelines for Environmental Review, October, 1980.

/4/ The housing formula is applied as follows: 188,992 sf of office divided by 250 sf per employee equals 756 employees, of which 40% or 302 would want to live in the City. This is adjusted by a factor of 1.8 persons/dwelling unit for a net demand of 168 units.

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APPENDICES

X. APPENDICES

Appendix A: Details of Existing Use

Figures A-1 through A-7 (pp.133-136) are plans, sections and elevations of Bauer-Schweitzer's physical plant. Figure A-1 (p.133) is the north elevation of the towers, the buildings the sponsor proposes to reuse. Figure A-2 (p.133) is the south elevation with the towers in the background, silos in the mid-range and Chestnut Street facade in the foreground. This drawing does not accurately represent the appearance of the Chestnut facade. Either it was never built that way or it was altered in the past. The reader is referred to Figure 23 (p.34) for a photographic view of the existing facade.

Figure A-3 (p.134) is the east elevation showing four silos cutaway to reveal low rise buildings which contain the drum rooms. The east facade of the Chestnut Street building is also shown. Figure A-4 (p.134) is the west elevation showing the towers, silos and Chestnut Street building. Referring to the site plan (Figure A-5, p.135), the reader will note the various parts of the mill. In the west tower are drying operations and a kiln room; in the east tower malt bins and the sacking floor; at the center of the site are eight steel /1/ silos used for storing malt, and the drum room; along Chestnut are two separate buildings, the east one used for offices and warehousing and the west one originally used for boiler and engine rooms, but now containing a machine shop. Figures A-6 and A-7 (p.136) are sections through the mill.

/1/ Presently there are six large and eight small silos on the site.

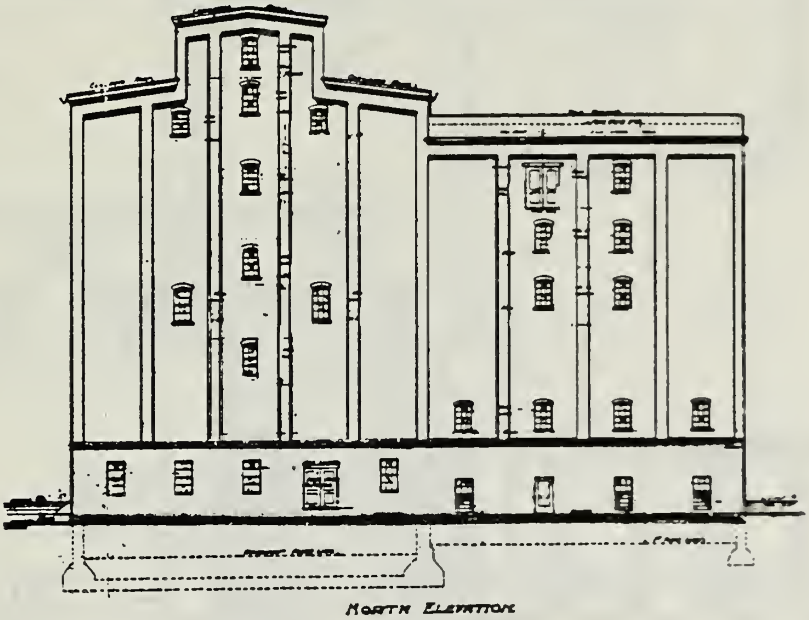

Figure A-1
NORTH ELEVATION OF BAUER-SCHWEITZER TOWERS
Source: Bauer Schweitzer Malt Company

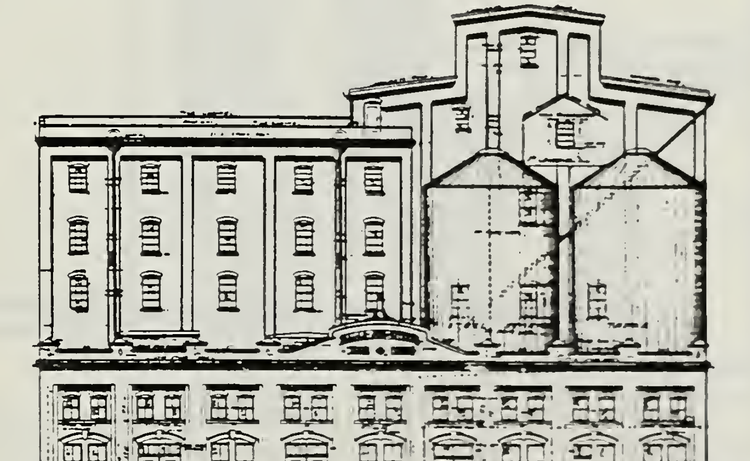

Figure A-2
SOUTH ELEVATION OF BAUER-SCHWEITZER PLANT
Source: Bauer Schweitzer Malt Company

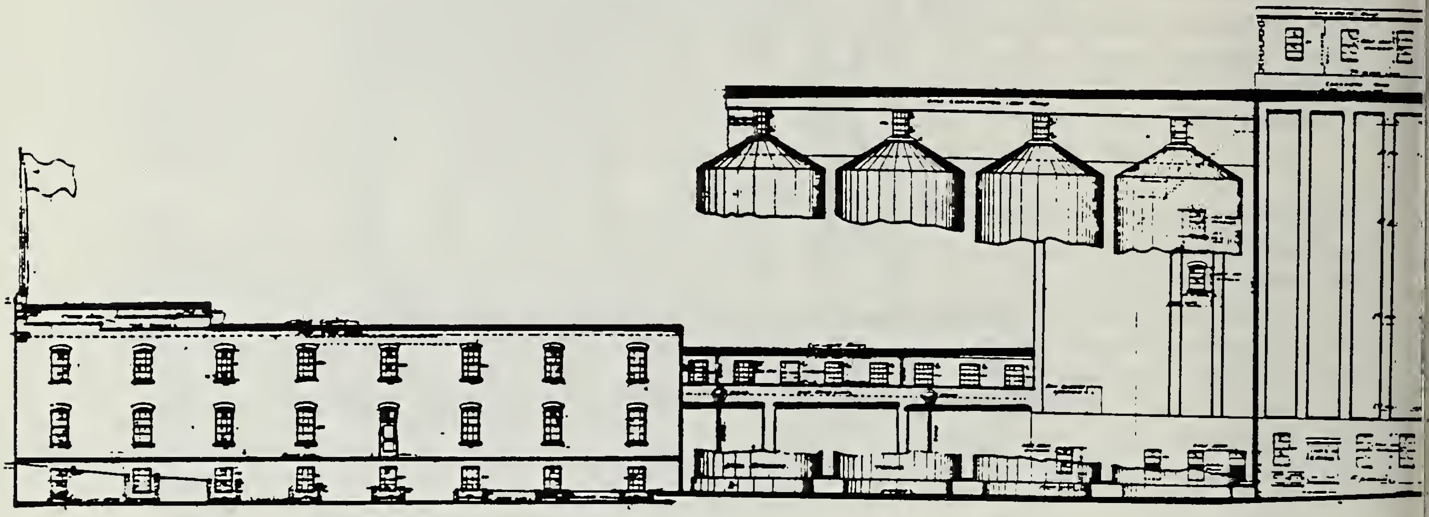

Figure A-3
EAST ELEVATION OF BAUER-SCHWEITZER PLANT
Source: Bauer Schweitzer Malt Company

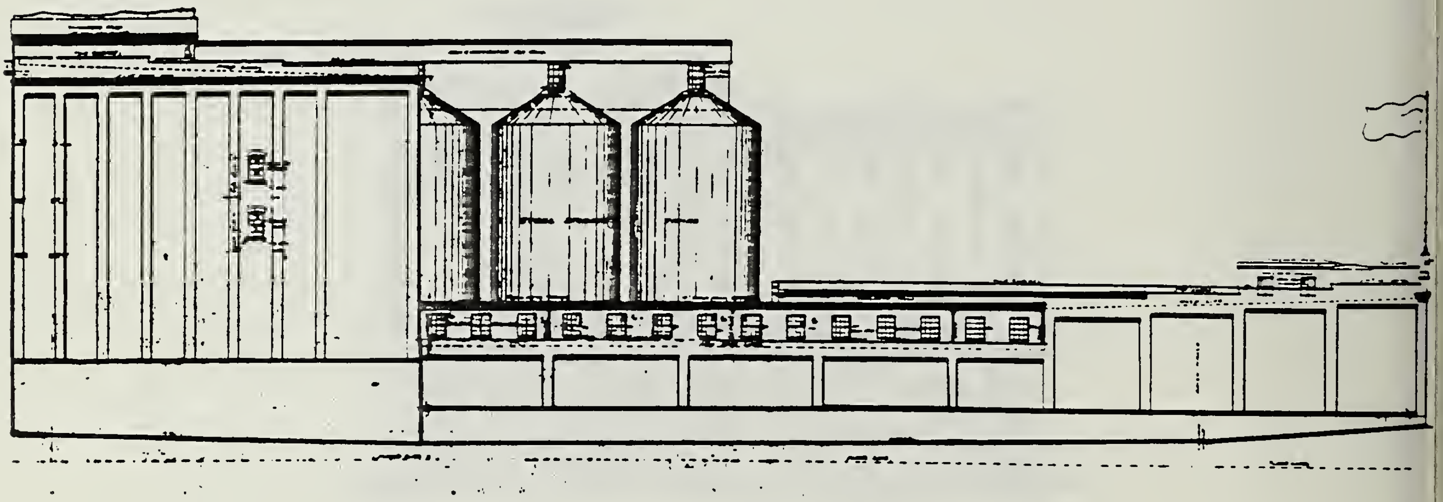

Figure A-4
WEST ELEVATION OF BAUER-SCHWEITZER PLANT
Source: Bauer Schweitzer Malt Company

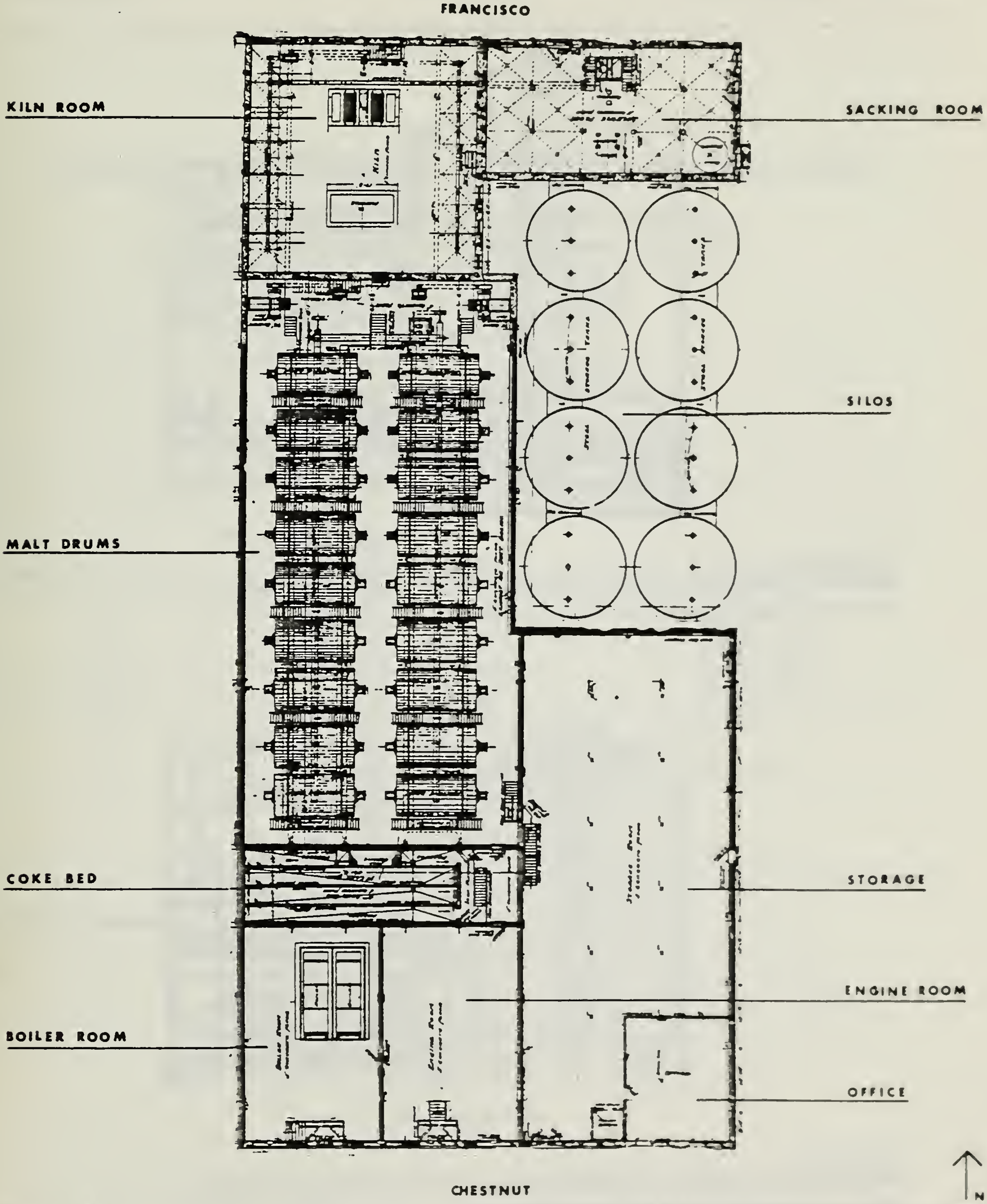

Figure A-6
BAUER-SCHWEITZER SITE PLAN
Source: Bauer Schweitzer Malt Company

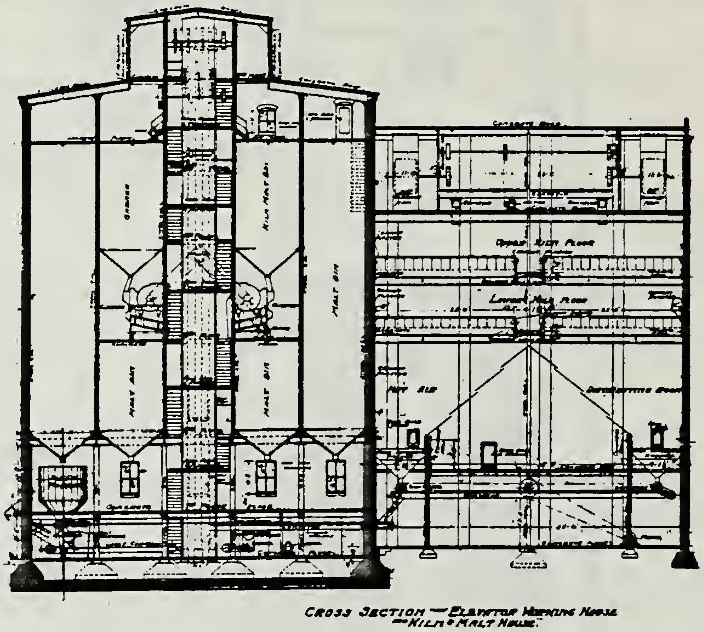

Figure A-6
SECTION THROUGH THE WORKING HOUSE AND KILN ROOM
Source: Bauer Schweitzer Malt Company

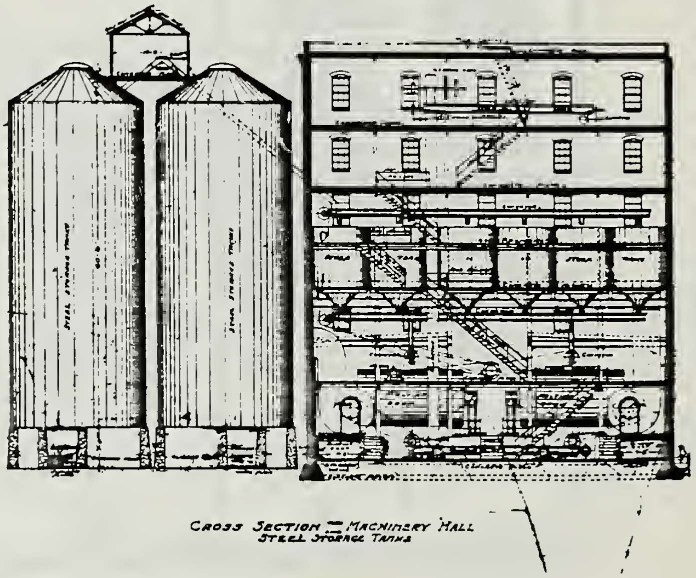

Figure A-7
SECTION THROUGH MACHINERY HALL AND STORAGE TANKS
Source: Bauer Schweitzer Malt Company

APPENDIX B: TRANSPORTATION ASSUMPTIONS AND METHODOLOGIES

Source: PRC Voorhees, Francisco Place Project:
Report on Transportation Impacts, September 4, 1981

Table B-1

LEVEL OF SERVICE DEFINITIONS

FOR UNSIGNALIZED INTERSECTIONS

Level of Service	Expected Traffic Delay	Reserve Capacity
A	Little or no delay	400 or more
B	Short traffic delays	300 to 399
C	Average traffic delays	200 to 299
D	Long traffic delays	100 to 199
E	Very long traffic delays	0 to 99
-	Failure - extreme congestion	Less than 0
F	Intersection blocked by external causes	Any value

SOURCE: PRC Voorhees

Table B-2

PEDESTRIAN LEVELS OF SERVICE

Level of Service	Quality of Flow	Space per Person (Square feet)	Average Flow/Volumes (pedestrians/foot of sidewalk width/minute)
A	Open or Unimpeded	130 or more	2 or less
B	Impeded	130-40	2-6
C	Constrained	40-24	6-10
D	Crowded	24-16	10-14
E	Congested	16-11	14-18
F	Jammed	11-2	variable up to 25

SOURCE: Pushkarev and Zupan, Urban Space for Pedestrians, A Report of the Regional Plan Association, 1975, p. 94.

Traffic Impact Methodologies: Because the intersections in the immediate vicinity of the proposed project are contolled by stop signs (two-way or four-way stop signs), methodologies specifically designed for these types of intersections were used to assess traffic conditions with and without the proposed project. One methodology is presented in the Transportation Research Circular /1/ entitled Interim Materials on Highway Capacity in Part 3, Section 2; Unsignalized Intersections. The section on unsignalized intersections is on file at the Office of Environmental Review, 45 Hyde Street in San Francisco and can be reviewed at that office. The second methodology applies to four-way stops; it is presented in the original Highway Capacity Manual. /2/

Methodology for two-way stops: The methodology assesses traffic conditions for those intersection approaches that are controlled by a STOP or YIELD sign, because these are the critical approaches in terms of traffic impacts and delays. Traffic increases on the free flowing approaches - the major approaches - will primarily affect traffic conditions on the minor approaches by decreasing the gaps available to the minor street traffic, i.e. the traffic controlled by STOP or YIELD signs. The methodology for unsignalized intersections calculates the capacity or maximum flow of vehicles for each minor approach movement on the basis of physical conditions (grades, lane configuration), of traffic controls (Stop or yield control) and of the other traffic movements that are in conflict with the particular minor movement. By comparing these values to the actual demand for each movement, a reserve capacity can be calculated determining probable delays and levels of service. Table B-3 shows the relationship between the reserve capacity, the level of service and the resulting delays for each minor approach movement.

The reserve capacity is the difference between the existing or projected traffic movement and the maximum capacity for that movement. It takes into consideration the volume of vehicles for that particular movement and the volumes in the opposing or conflicting movements and the resulting traffic gaps.

Table B-3
LEVEL OF SERVICE AND EXPECTED DELAY FOR RESERVE CAPACITY RANGES

Reserve Capacity	Level of Service	Expected Traffic Delay
400 or more	A	Little or no delay
300 to 399	B	Short traffic delays
200 to 299	C	Average traffic delays
100 to 199	D	Long traffic delays
0 to 99	E	Very long traffic delays
Less than 0		Failure-extreme congestion
Any Value	F	Intersection blocked by external causes

/1/ Transportation Research Board, National Academy of Sciences, Washington D.C., Number 212, January 1980.

/2/ Highway Research Board, National Academy of Sciences, Highway Capacity Manual (Special Report 87), 1965.

No numerical values are indicated for the traffic delays. The application of this methodology to a stop-controlled intersection in the Bay Area and the observation of traffic delays indicated that at a stop-controlled approach calculated to operate at level of service E during the peak hour, about one third of the vehicles had to wait for more than 20 seconds and that the average delay for this "delayed" traffic was 43 seconds. The other two-thirds of this movement had to wait less than 20 seconds to find a gap in the major flow. In addition to the level of service and delays, the number of vehicles subject to those conditions during the peak hour has to be taken into consideration

The above traffic level of service descriptions are similar to the levels of service used for freeways or for signalized intersections in the sense that they range from A to F with A representing the best conditions (i.e. free flowing, able to pass through a signalized intersection during the first cycle or subject to no delays) and F representing the worst conditions (i.e. blocked traffic having to wait for several signal cycles).

Methodology for four-way stops: Intersections controlled by four-way stop signs were evaluated on the basis of three factors: the total traffic volume passing through the intersection, the proportion of traffic arriving on each approach, and the number of lanes on each approach to the intersection. The table below gives the intersection capacity (total number vehicles which can pass through the intersection in one hour) for an intersection with four one-lane approaches: /1/

Traffic Volume Split Major Road % Minor Road %	Total Capacity (Vehicles per Hour)
50/50	1900
55/45	1800
60/40	1700
65/35	1600
70/30	1550

To specify levels of service, the following correlation to traffic volume and total intersection capacity were selected:

Volume/Capacity	Level of Service
0.0-0.6	A
0.6-0.7	B
0.7-0.8	C
0.8-0.9	D
0.9-1.0	E
greater than 1.0	F

/1/ Ibid.

X. APPENDICES

Adjustments for Pedestrian Volumes: Because of the high volumes of pedestrian traffic found in the project area, and their observed impacts on vehicular flows at the adjacent intersections, a methodology was developed for this study which adjusts intersection capacities (and levels of service) to account for pedestrain traffic. The adjustment incorporated the following pedestrian flow factors:

> Platoon Formation - research has found that under normal flow conditions, involuntary groupings of pedestrians (platoons) form which result in an actual flow rate which is about 1.3 times as high as the average flow rate. /1/
>
> "Choice" Group Formation - in addition to involuntary platoon formation, people walking together by choice also tend to concentrate pedestrian traffic streams and increase flow rates; due to the nature of the pedestrian generators in the area (school, community center, playground), this choice grouping factor was estimated to be at least 1.5 persons per group.
>
> Street Crossing Timne - it was estimated to take about six seconds for each pedestrian, pedestrian group or platoon to cross the street. /2/

Using these factors, it was determined, for example, that pedestrian flow of 100 people using a crosswalk in a ten-minute period, would use 51% of the capacity of the street they were crossing:

Percent of Time (Capacity) Used =
= Number of Crossings x Time per Crossing/Total Time
= (100 ÷ 1.3 ÷ 1.5) x (6 sec.) /600 sec.
= 51%

Vehicles passing through an intersection would have to cross two crosswalks and it was assumed that the available time in which they could do so would be determined by the amount of time available for them to cross the higher volume crosswalk and that some interference would also be encountered at the lower-volume walk. As a result, vehicles crossing two crosswalks where pedestrians used 50% and 30% of the street capacity, respectively, would find about 60% (50% + 1/3 x 30%) of the total capacity of the intersection unavailable due to crossing pedestrians.

For each traffic movement, the total capacity discount due to crossing pedestrians was used to reduce the total capacity for that movement that was obtained from one of the two stop-sign evaluation techniques described above. The results agreed with observed conditions at the study-area intersections during periods of peak pedestrian flow.

/1/ Pushkarev and Zupan, Urban Space for Pedestrians, Report to the Regional Plan Association, 1975, p. 94-95.

/2/ CalTrans standards for signal "walk" phase lenghts are based on street crossing speeds of four feet per second.

X. APPENDICES

Traffic Generation and Distribution for Proposed Project: The following trip generation rates have been assumed for the proposed project:

Average daily trips: /1/	7 person trips/dwelling unit. 17.5 person trips/1000 square feet office space
Peak-hour/daily trips: /1/	17.5% for residential 20% for office
Mode Usage:	40% auto drivers 5-10% auto passengers 45-50% MUNI riders about 5% other

In conjunction with these trip rates, several worst-case assumptions were applied. It was assumed that 80% of the office-generated traffic would leave the site in the PM peak hour and 75% of the residential traffic would be returning to the site. In addition, it was assumed that there would be no one who both lived in the Francisco Place residential units and worked in the Francisco Place offices. Also as a worst-case, no discount was taken for traffic generated by existing uses on the Francisco site. The net changes in area traffic between existing conditions and the with Francisco levels would actually be less than the amount of traffic generated by Francisco. Although Francisco Place would generate about 600 daily vehicle trips, current generation of the site (about 40 average daily trips) would be eliminated, for a net increase of 560 trips. Similarly, the 110 peak-hour vehicle trips generated by the proposed project would represent an increase of about 100 over current traffic generated by the site.

No specific information is available to help predict how the additional traffic would be distributed over the surrounding street network. Considering the major directions of travel from the site and the associated destinations and travel route options, there is uncertainty of ± 30% in the traffic distribtuion. To represent a worst-case traffic situation, a total of 130% of the generated traffic has been distributed over the adjacent road network. By assigning 30% more traffic than is generated by the proposed project, the traffic impact assessment will be on the conservative side, overestimating the average impacts.

Traffic Impact Evaluation: Traffic conditions were calculated for the year 1983, when the proposed project is expected to be completed and occupied. As historic traffic

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/1/ Sources: S.F. Department of City Planning, Guidelines for Environmental Evaluation, Transportation Impacts, October, 1980; and Ed Green, Department of City Planning, phone conversation, June 5, 1980.

counts in the vicinity of the project are insufficient to project general growth into the future, an assumed annual growth rate of 1% was used, implying an increase of 3% in area traffic by 1983. The peak-hour traffic which would be generated by the proposed project was added to the estimated 1983 volumes to determine future traffic conditions. The methodologies described above have been used as for the assessment of existing traffic conditions at adjacent intersections and the evaluation of project impacts.

APPENDIX B-2: TRANSIT IMPACTS

Methodology: The project's impact on transit depends on the number of transit riders it would generate. Worst-case assumptions were used to estimate the number of added passengers.

The analysis of transit impacts focused on the average weekday PM peak hour (which occurs during the 4 to 6 PM period), when the number of transit passengers would be highest. The transit impact of the project was measured through the amount of the PM peak reserve capacity on the transit lines serving the project that the transit riders generated by the project would use.

Estimation of Added P.M. Peak Period Transit Riders: In order to estimate the number of additional PM peak period transit riders that the project would generate, the following assumptions were made:

1. It was assumed that up to 50% of the total PM peak-hour person trip ends generated by the project would be transit trips. This was based on findings that over 60 percent of the downtown employees living in San Francisco use MUNI for their home-to-work trips. However, trips to other destinations and trips for other purposes would have lower percentages using public transit. Therefore, the 50 percent figure is estimated to represent a maximum transit split.

2. It was esimtated that the project would generate 1491 daily person trips and that about 282 of these would occur in the peak hour. Since the modal split between transit and automobile trips is estimated to be up to 50 percent each, the project would generate about 134 transit person trip ends in the PM peak hour.

3. It was further assumed that a maximum of 85% of the PM peak-hour transit trips would be oriented in the peak travel direction. /1/ Because of the project's location, it was also assumed that no more than 50% of the office-generated transit riders who would travel in the peak direction would be on any of the MUNI lines passing the site at the point of the line's maximum ridership. For example on the 30 Stockton, the PM peak load point occurs at Sutter and Stockton Streets on outbound runs. Individuals leaving the

---

/1/ Institute of Transportation Engineers, Handbook, page 166.

Francisco offices would travel either inbound (the off-peak direction) or outbound, in which case they would board the line at a point where its loads had already started to drop off. Only those travelling to Francisco in the PM peak hour and those who, for example, ride the 15 Third through downtown to the S.P. Depot would add to peak-hour, peak-direction ridership at the maximum load point of project-area lines.

Based on the above assumptions, an estimate of the additional PM peak period transit riders that the project would generate was derived as follows:

Additional PM peak-period, peak directional MUNI Riders Generated:

Total = 136 MUNI trips in Peak Hour x 0.85
= 116 trips
At Maximum = 54 residential trips x 0.85
Load Points + 80 office trips x 0.85 x 0.5
= 80 trips

Project impacts on future Muni Load factors are shown in Table B-4 (p.145)

Future Growth and Cumulative Impacts: Commute ridership on MUNI will continue to increase in future years due to coincidental increases in downtown employment and in the number of residences in the City. The cumulative increases in peak-hour MUNI ridership have been projected on the basis of buildings which are approved and/or under construction downtown. /1/

These projections of increased peak trips between the new employment centers and residences in San Francisco rely on anticipated increases in the City's housing stock as well as increases in the average number of household members in the labor force. /2/ It is evident that adding to these forecasted commute trip levels because of residential growth represents, to some extent, a double counting of the increases. For this reason, the projected future MUNI ridership in the project area is likely to include some double counting. The actual with-project 1983 MUNI reserve capacity in the area is likely to be between 581 and 663.

APPENDIX B - 3: TRUCK TRIP GENERATION

Table B-5 (p.146) details truck trip generation and accumulation due to the proposed project.

/1/ S.F. Department of City Planning, "List of Projects Approved or Under Construction", Guidelines for Environmental Impact Evaluation, Transportation Impacts, October 1980.

/2/ San Francisco Municipal Railway, Five Year Plan, 1981-1986, Volume II, May 15, 1981, p.2-4.

Table B - 4

PROJECT IMPACTS ON FUTURE MUNI LOAD FACTORS

		Conditions w/o Francisco Place /1/			Francisco Place Impacts		
			Comparison at 1983 Ridership With 1980 Capacity				
Muni Line	1980 Capacity /1/	1983 Ridership	Reserve Cap	Load Factor	Trips Added	Resulting Reserve	Resulting Load Factor
15	975	1108	-133	1.14	22	-155	1.16
19	825	659	+166	0.80	14	+152	0.82
30	1425	1336	+89	0.94	27	+62	0.96
32	1050	520	+530	0.50	11	+519	0.51
42	300	289	+11	0.96	6	+5	0.98
		3912	+663		80	+583	

/1/ San Francisco Department of City Planning, Guidelines for Environmental Evaluation — Transportation Impacts, October 1980

SOURCE: PRC Voorhess

Table B - 5

FRANCISCO PLACE TRUCK TRIP GENERATION

		Truck Visit Generation				Truck Accumulation			
				Peak Hour /6/				Peak 15-min /8/	
Average Day /1/	Truck Visit Generation Rate /3/	Daily	Average Hour/5/	Total	Large Trucks /9/	Avg./7/ Hour	Peak Hour /7/	Total	Large Trucks/9/
Residential	3.0	2.8	0.3	0.5	0.3	0.2	0.3	0.5	0.3
Office	2.1	12.6	1.4	1.8	0.4	0.7	0.9	2.2	0.5
Total		15.4	1.7	2.3	0.7	0.9	1.2	2.7	0.8
Peak Day /2/									
Residential	3.4	3.2	0.4	0.6	0.4	0.2	0.3	0.6	0.4
Office	2.6	15.6	1.7	2.2	0.4	0.9	1.1	2.8	0.6
Total		18.8	2.1	2.8	0.8	1.1	1.4	3.4	1.0

SOURCE: PRC Voorhees

Table B-5 Notes

/1/ Average day generation rate for each use is the maximum of the average rates for the use found in all of the studies referenced below.

/2/ The peak day generation rate for each use is the maximum rate found in all of the individual surveys in the studies referenced below.

/3/ Rates for residential are "per 100 DU", and rates for office are "per 10,000 square feet GLA."

/4/ Daily visits equals generation rates multiplied by 93 DU or 60,000 square feet GLA.

/5/ Average-hour equals daily visits divided by 9-hour delivery period per day.

/6/ Peak-hour residential equals average-hour residential times 165% (Ref.a)(p. 131). Peak-hour office equals average-hour office times 125%. (Maximum from Ref. a and Ref. b.)

/7/ Based on average truck pickup/delivery time of 30 minutes (maximum for Ref. a and Ref. b).

/8/ Based on a ratio of peak-15-minutes to average-15-minutes accumulation of 3.2/1 (Ref.a).

/9/ Based on a ratio of large (single unit and trailers) to small (vans and panel trucks) of 2:1 for residential and 0.25/1 for offices (Ref.a).

Table B-5 References

a. PRC Voorhees, Fox Plaza Delivery Vehicle Survey, (letter to San Francisco Dept. of City Planning), July 15, 1981.

b. San Francisco Dept. of City Planning, Approaches for Resolving Issues of Downtown Conservation and Development (Appck. G - Requirements and Procedures for Off-street Loading), September 1980.

c. Wilbur Smith and Associates, Centor Center Transportation Study, Dallas, Texas, Phase II. Prepared for the Urban mass Transportation Administration, December 1970.

d. ITE Project Committee 60-62. "Traffic Considerations in Planning of Center Business Districts." Traffic Engineering Magazine, June 1964.

e. Barnstead, R.C., "Truck Activities in the City Center." The Urban Movement of Goods. Proceedings of the Third Technology Assessment Review, October, 1970. (Toronto data)

f. Marconi, William "Commercial Vehicles in a Large Central Business District." Traffic Engineering, February, 1971. (San Francisco data).

g. Deleuw, Cather and Company. Long-Range Transportation Plan for the Central Business District, Dallas, Texas. July 1965.

h. Bates, Malcolm V., Goods Movement by Truck in Central Area of Selected Canadian Cities. Prepared for the Canadian Trucking Association, 1970.

i. Alan M. Voorhees & Associates, Inc. "Summary Report of Preliminary Goods Movement Data." Prepared for the North Central Texas Council of Governments, December 1972.

j. Wilbur Smith & Associates, Motor Trucks in the Metropolis, 1969.

k. City & County of SF Department of Public Works. Commercial Vehicles in a Large Central Business District, 1973.

l. Caltrans 9th, 10th and 13th Progress Reports on Trip ends Generation Research Counts, Counts of truck traffic at 8 individual office buildings and 15 individual residential developments throughout the San Francisco Bay Area, 1974 - 1980.

Appendix C: 1976 Architectural Inventory

The 1976 Architectural Inventory published by the San Francisco Department of City Planning ranks structures on a scale of 1 to 5 regarding their architectural merit and urban design qualities. In addition, structures are grouped into architectural survey classifications by means of a one letter - one digit code. These groupings are shown in Table C-2 (p. 150). Noted structures on the site block and surrounding blocks are shown in Figure C-1 (p. 151). The ratings themselves are shown in the table below (Table C-1). The architectural grouping code in the table keys into the architectural groupings shown in Table C-2 (p. 150).

Table C-1
1976 Architectural Inventory for Blocks in the Site Vicinity

Assessor's Block	Lot	Address	Architectural Merit	Group	Urban Design
40	5	306 Francisco	1	none	1
	6	330 Francisco	0	D7	0
41	4	2233 Powell	1	none	1
	10	424 Francisco	1	B8	1
	33	327 Bay	1	none	none
	35	333 Bay	1	none	none
	39	377 Bay	none	none	none
42	1	400-600 Bay	none	none	none
51	7,8	2330 Taylor	0	B7	1
	15	45 Water	1	none	1
	24	523 Francisco	1	F1	1
	29	547 Francisco	0	B8	0
52 (site)	1	401 Francisco	0	F1	0
	22	2252-6 Mason	0	B8	1
	23	475 Francisco	2	C3	2
63	1	1957 Stockton	0	B8	0
	4	1935 Stockton	0	F1	0
	6	1923-5 Stockton	0	B7	0
	12	532 Lombard	1	B7	2
	13	538 Lombard	1	B7	2
	14	544 Lombard	1	B7	2
	18	590 Lombard	1	C6	2
	20	2032 Powell	2	B7	2
	24	455 Chestnut		not mapped	

63	25	449 Chestnut		not mapped	
	26	443 Chestnut		not mapped	
	27	437 Chestnut		not mapped	
64	1	2065 Powell	1	B7	2
	2	2055-9 Powell	2	B7	2
	5	2037 Powell	2	B8	3
	6	2027-33 Powell	1	B7	2
	7	2017 Powell	1	B7	2
	9	604-7 Lombard	1	C6	2
	31	2011 Powell	1	B7	2

ARCHITECTURAL SURVEY CLASSIFICATION

Table C-2

A. CALIFORNIA TRADITION

1. *Mission*
2. *Mission Revival*
3. *Pueblo Style*
4. *Spanish Colonial Revival*
5. *Monterey Style*
6. *Variations*

B. NINETEENTH CENTURY ORNAMENTAL STYLES

1. *Gothic Revival*
2. *Greek Revival*
3. *Italianate / Italianate Revival*
4. *Stick Style / Eastlake*
5. *Queen Anne*
6. *French Mansard*
7. *Carpenter Classic / Edwardian*
8. *Compromised: Amalgam, Vernacular, Romeo, Related*

C. AMERICAN TRADITIONAL & REGIONAL STYLES

1. *First Bay Tradition*
2. *Second Bay Tradition*
3. *Third Bay Tradition*
4. *Colonial Revival*
5. *Craftsman / Bungalow*
6. *Related / Unornamented Vernacular*

D. CLASSICAL ROOT STYLES

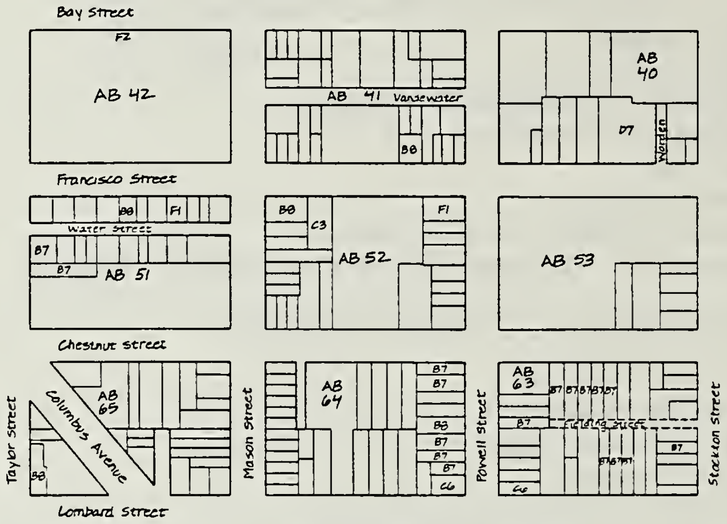
1. *Beaux Arts / Neoclassicism / Later Greek Revival*
2. *Free Classical*
3. *Renaissance*
4. *Romanesque*
5. *Skyscraper Gothic*
6. *Georgian*
7. *Vernacular Variations*

E. EXOTIC STYLES

1. *French Baroque*
2. *Art Nouveaux / Secessionist*
3. *Flemish Baroque*
4. *Tudoresque / Elizabethan-Jacobean*
5. *Cottage Styles*
6. *Moorish / Oriental Styles*
7. *Miscellaneous / Other Revivals: German Baroque, Byzantine Revival, etc.,*

F. MODERN ROOT STYLES

1. *Commercial / Utilitarian*
2. *International / Miesian*
3. *Prairie School*
4. *Formalism*
5. *Zigzag Moderne*
6. *Streamline / WPA Moderne*
7. *Expressionist / Structural Exhibitionist / Brutalism*
8. *Related Variations*



KEY

F1 Modern Commercial Utilitarian Style
F2 International/Miesian
B7 19th Century Carpenter Classic
B8 19th Century Compromised
C3 Third Bay Tradition
C6 American Traditional Unornamented Vernacular
D7 Classical Vernacular

Figure C-1

ARCHITECTURALLY SIGNIFICANT STRUCTURES
Source: San Francisco Department of City Planning

X. APPENDICES

Appendix D: Shadow Diagrams

Shadow lengths and bearings that would be created by the towers on Francisco htreet and the Chestnut Street units were calculated for December 21st, heptember 21st, March 21st and June 21st.

These shadows and the shadows cast by the existing structures are shown in Figures D-1, D-2, and D-3 (pp. 154-156). Shadows for three times of the day are shown: 8 AM, 1 PM, and 4 PM.

SHADOW DIAGRAMS

Source: Planning Analysis & Development

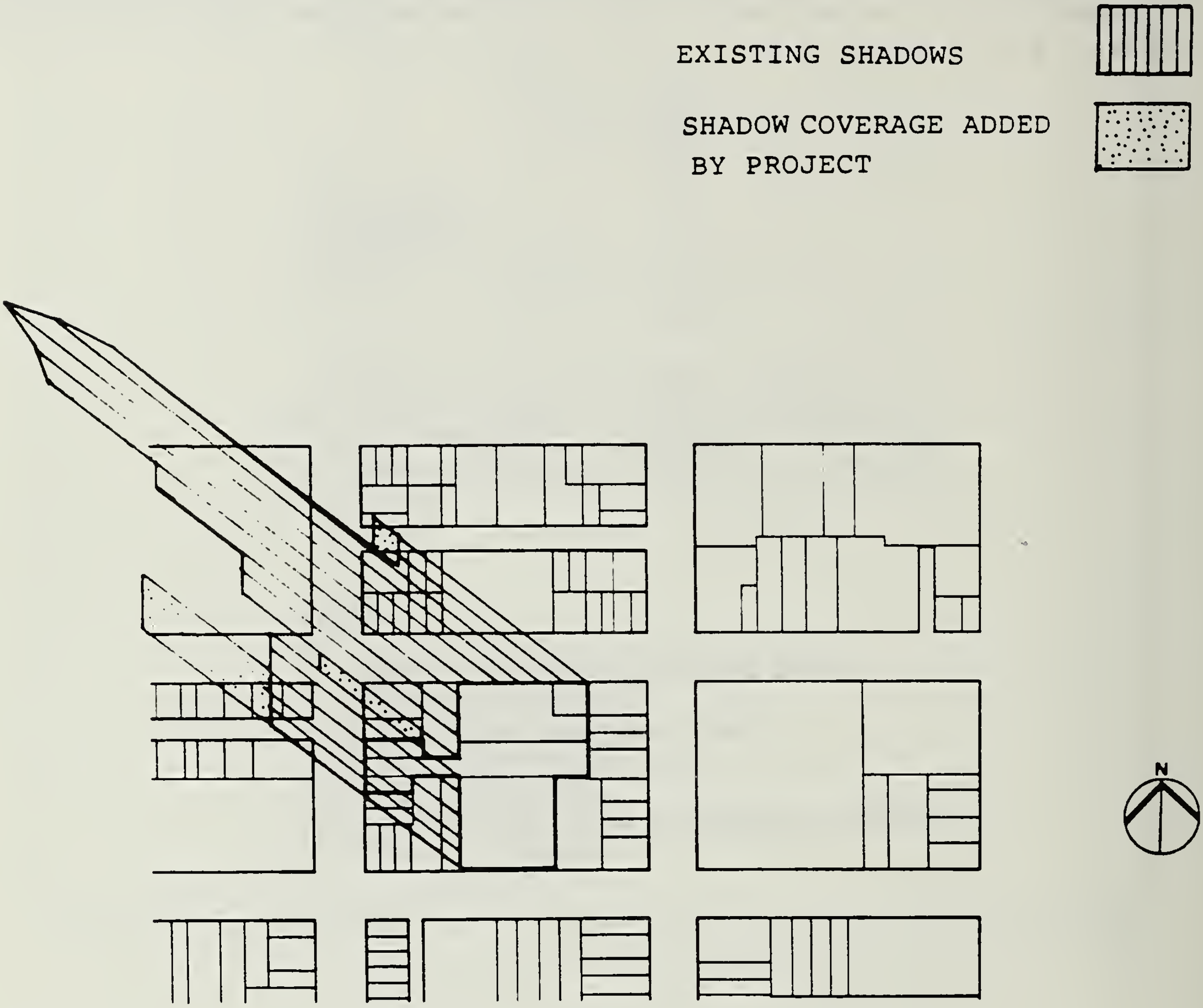


FIGURE D-1 DECEMBER 21ST SHADOWS

a) 8:00 AM

SHADOW DIAGRAMS

Source: Planning Analysis & Development

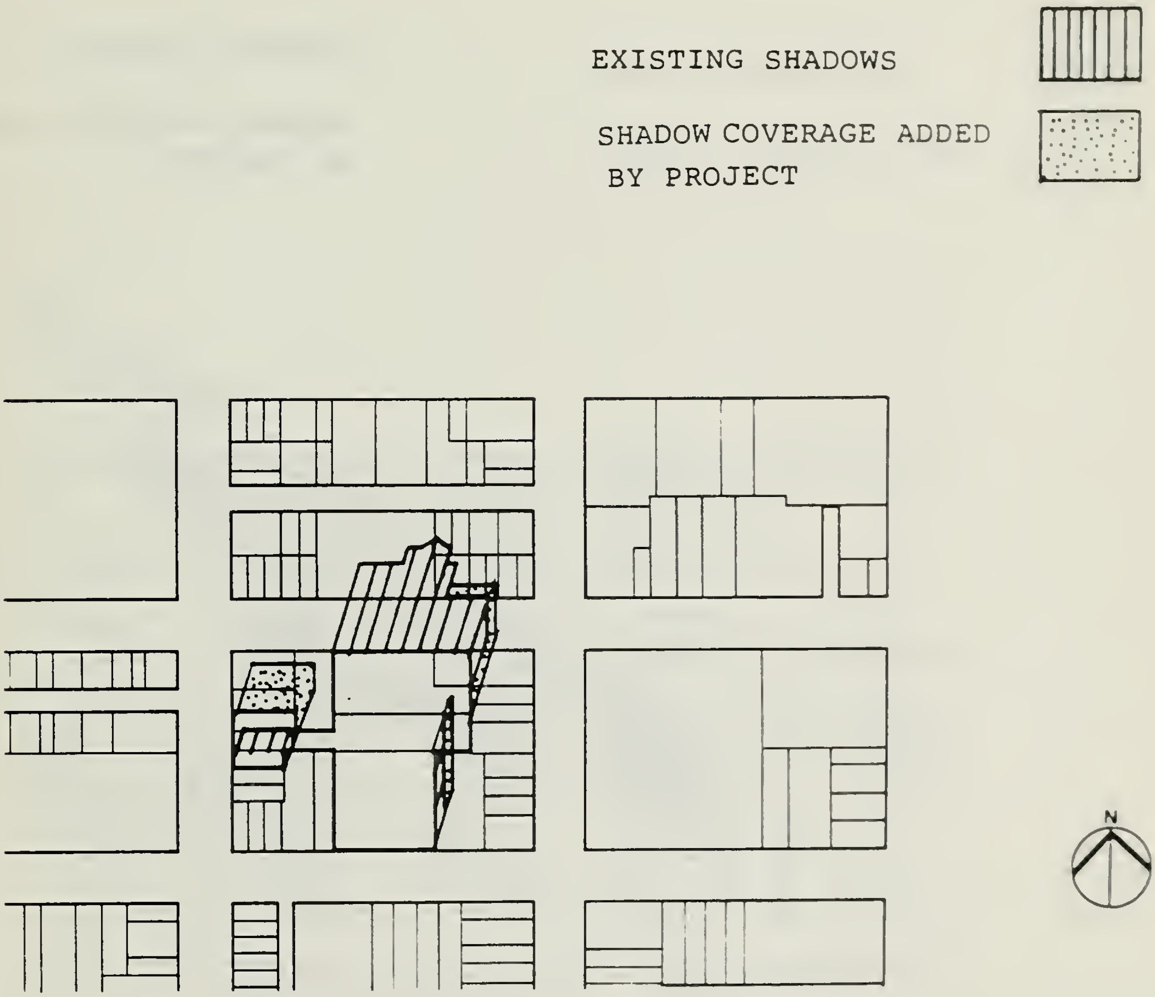


FIGURE D-1 DECEMBER 21ST SHADOWS

b) 1:00 PM

SHADOW DIAGRAMS

Source: Planning Analysis & Development

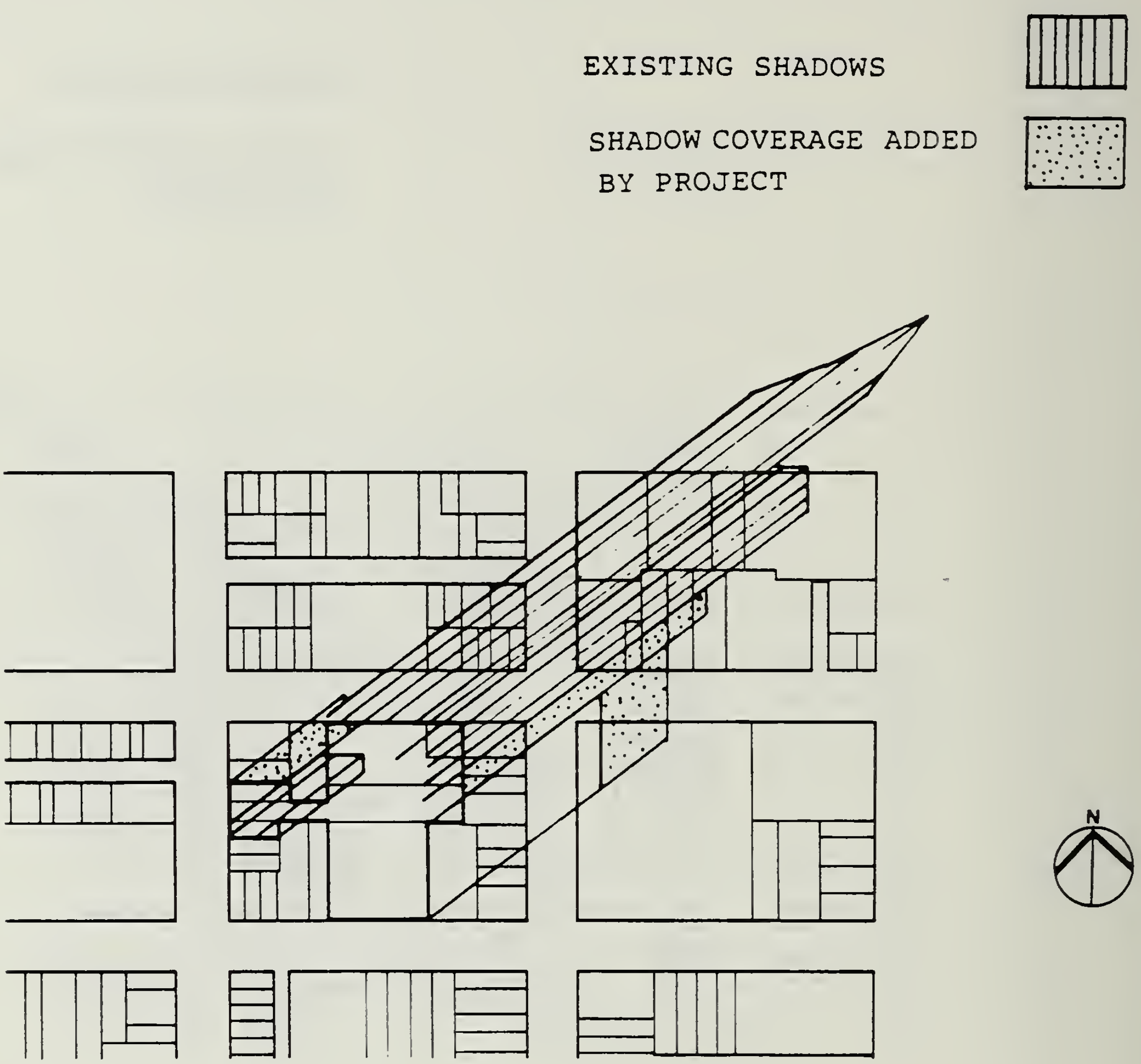


FIGURE D-1 DECEMBER 21ST SHADOWS

c) 4:00 PM

SHADOW DIAGRAMS

Source: Planning Analysis & Development

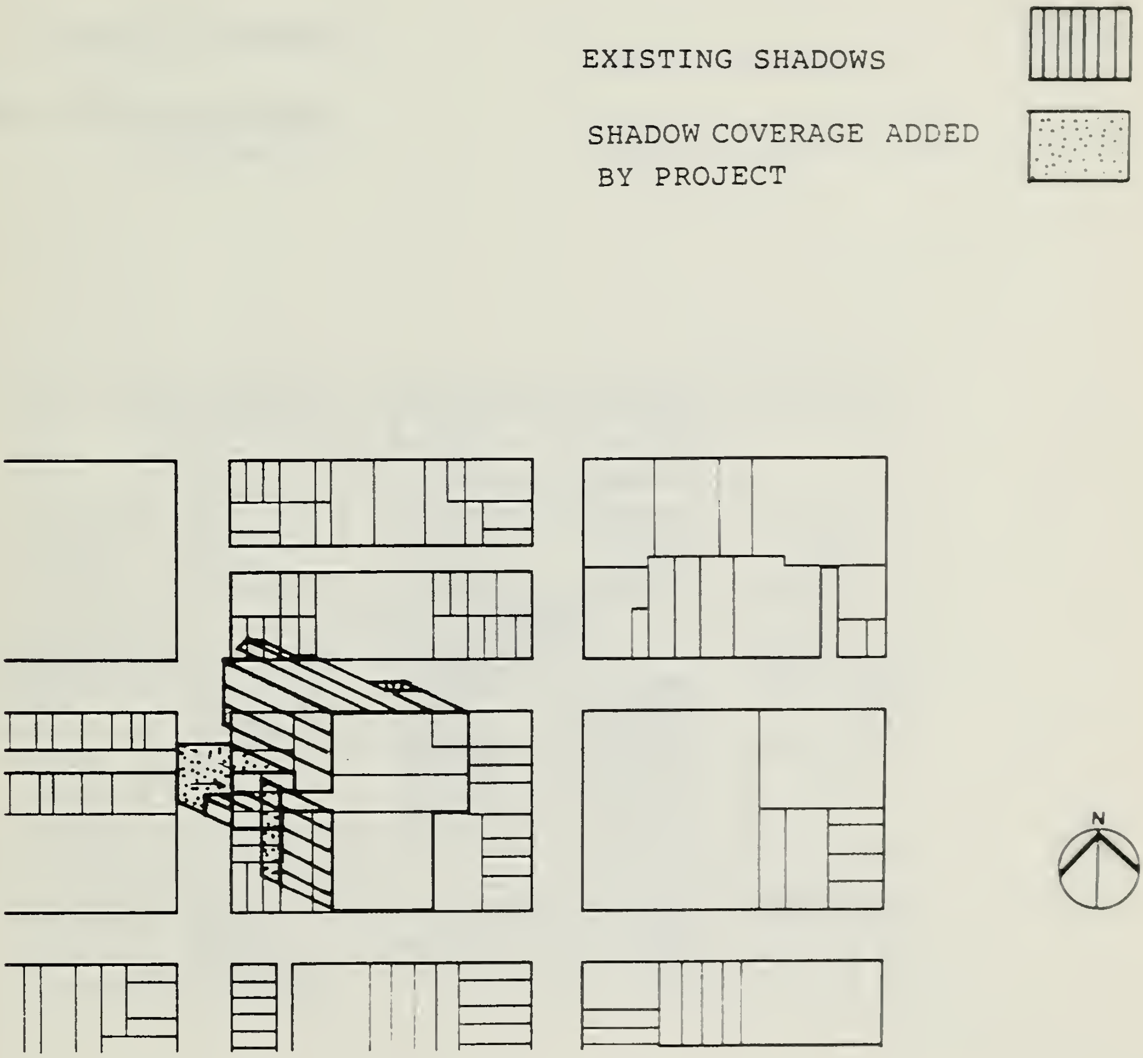


FIGURE D-2 SEPTEMBER AND MARCH 21ST SHADOWS

a) 8:00 AM

SHADOW DIAGRAMS

Source: Planning Analysis & Development

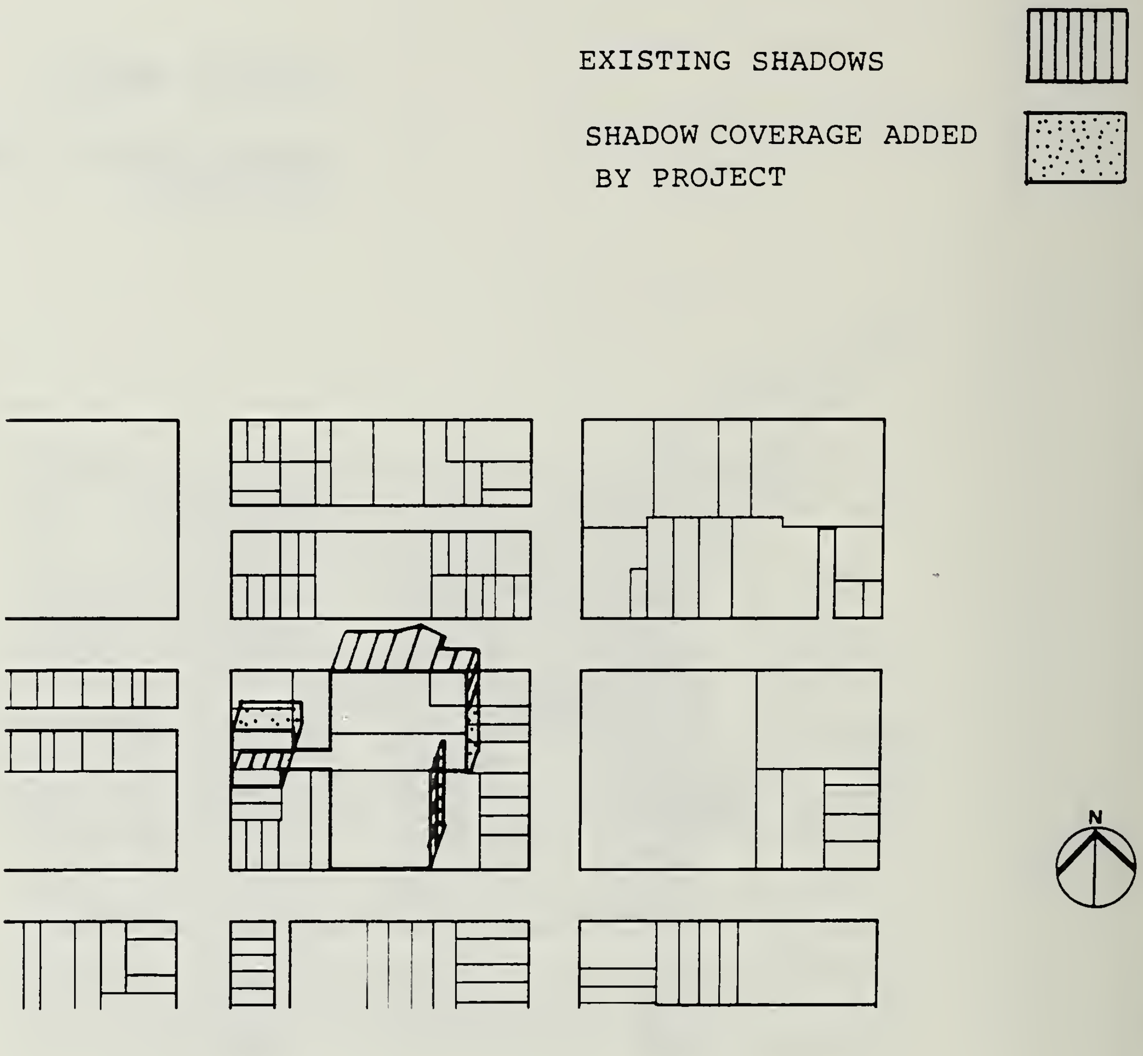


FIGURE D-2 SEPTEMBER AND MARCH 21st shadows

b) 1:00 PM

SHADOW DIAGRAMS

Source: Planning Analysis & Development

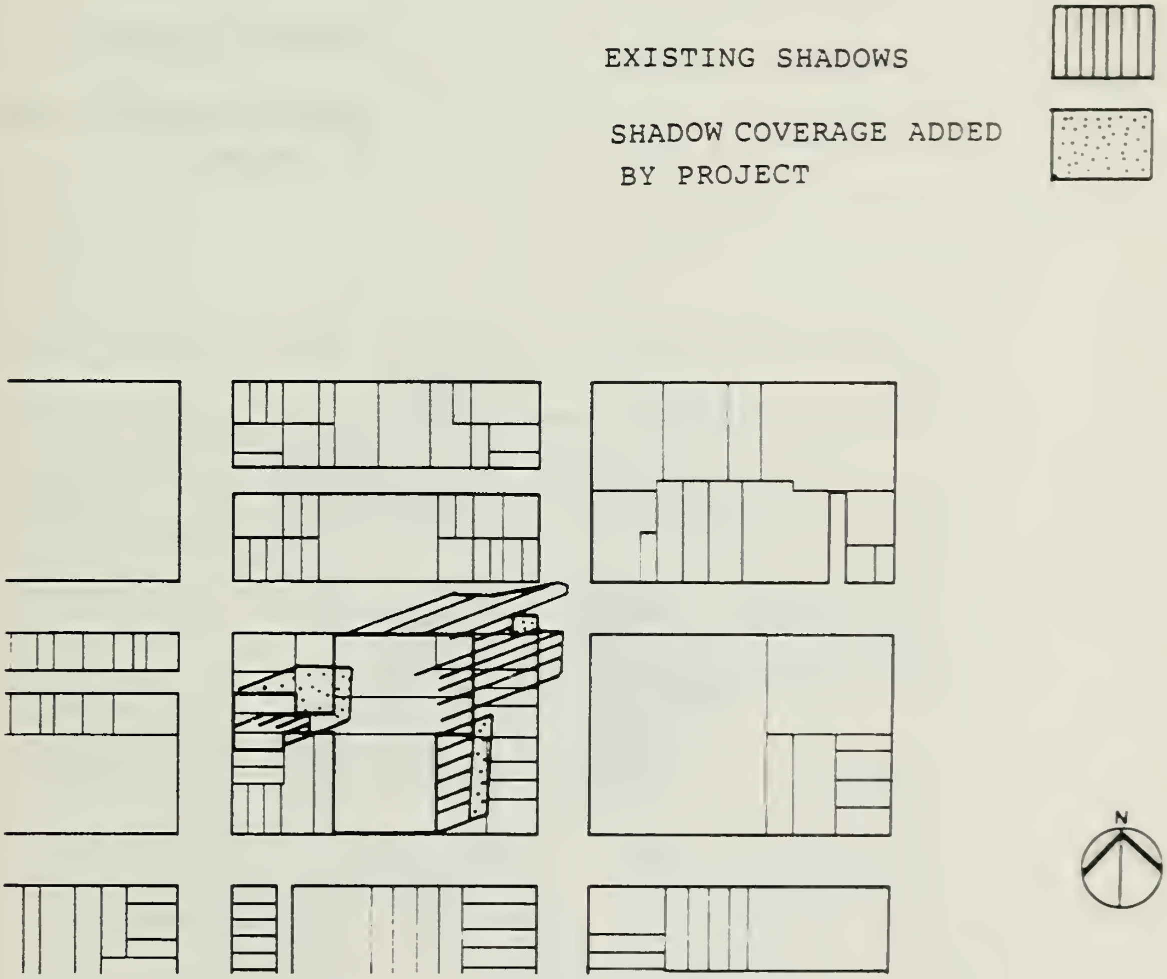


FIGURE D-2 SEPTEMBER AND MARCH 21ST SHADOWS

c) 4:00 PM

SHADOW DIAGRAMS

Source: Planning Analysis & Development

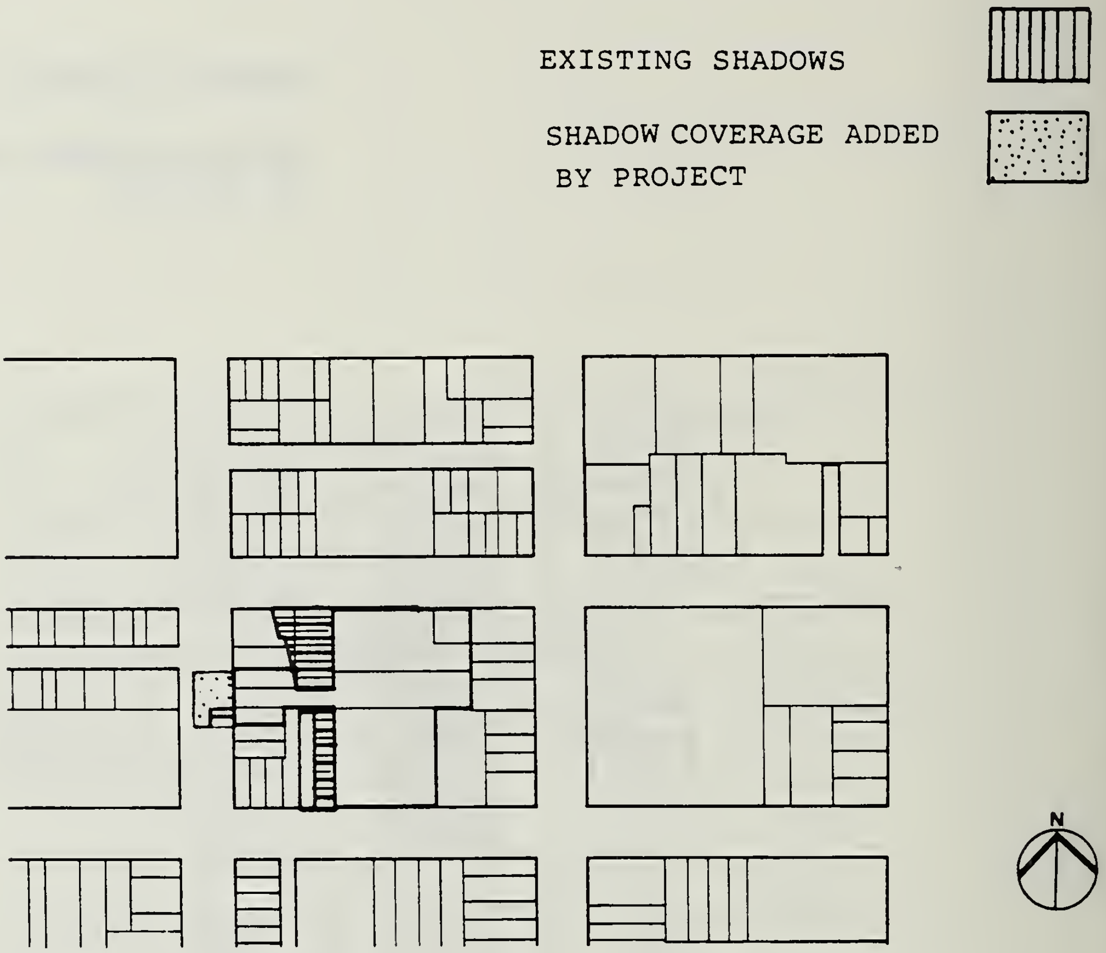


FIGURE D-3 JUNE 21ST SHADOWS

a) 8:00 AM

SHADOW DIAGRAMS

Source: Planning Analysis & Development

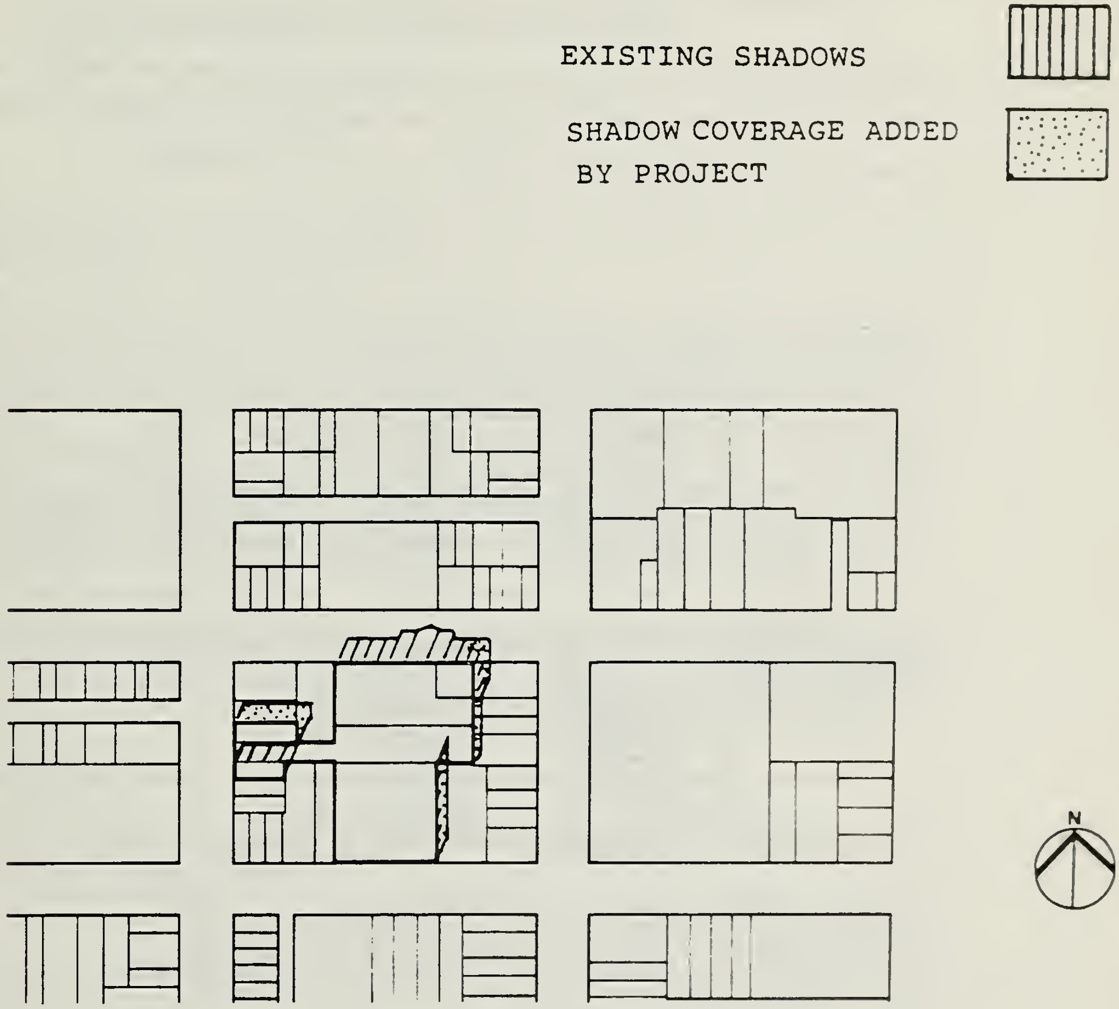


FIGURE D-3 JUNE 21ST SHADOWS

b) 1:00 PM

SHADOW DIAGRAMS

Source: Planning Analysis & Development

EXISTING SHADOWS ▥

SHADOW COVERAGE ADDED BY PROJECT ░

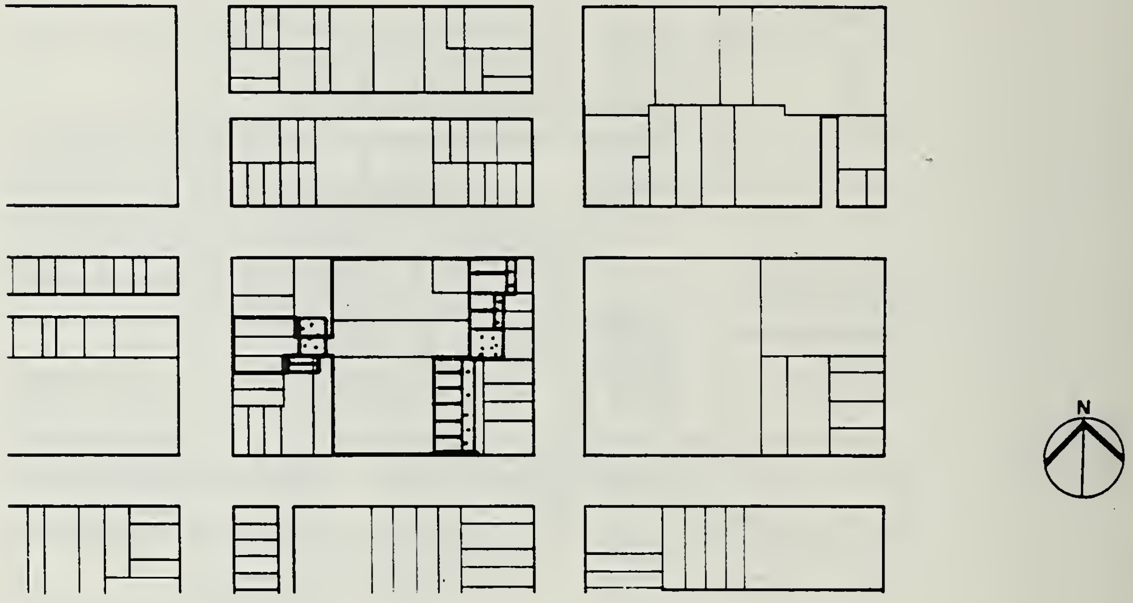


FIGURE D-3 JUNE 21ST SHADOWS

c) 4:00 PM

X. APPENDICES

Appendix E: Initial Study

DEPARTMENT OF CITY PLANNING 100 LARKIN STREET SAN FRANCISCO CALIFORNIA 9410
(415) 552-1134

NOTICE THAT AN ENVIRONMENTAL IMPACT REPORT IS DETERMINED TO BE REQUIRED

Date of this Notice: February 6, 1981

Lead Agency: City and County of San Francisco, Department of City Planning
100 Larkin Street, San Francisco, CA. 94102

Agency Contact Person: Sally E. Maxwell Tel: (415) 552-1134

Project Title: EE80.248 Francisco Place

Project Sponsor: Francisco Place Venture

Project Contact Person: Dai Williams

Project Address: 530 Chestnut Street

Assessor's Block(s) and Lot(s): Lot 10 in A/B 52

City and County: San Francisco

Project Description: Demolition of 8 steel storage tanks and 3 buildings, construction of a P.U.D. containing approximately 90 residential units (approx) 90,000 sq. ft.; approximately 50,000 sq. ft. of commercial office space; approximately 190 off-street parking spaces. The project would be 6 stories tall and require a conditional use permit.

THIS PROJECT MAY HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT AND AN ENVIRONMENTAL IMPACT REPORT IS REQUIRED. This determination is based upon the criteria of the Guidelines of the State Secretary for Resources, Sections 15081 (Determining Significant Effect), 15082 (Mandatory Findings of Significance) and 15084 (Decision to Prepare an EIR), and the following reasons, as documented in the Initial Evaluation (initial study) for the project, which is on file at the Department of City Planning:

The project would include 1) the demolition of several buildings, and 2) the addition of about 90 residential condominium units, about 50,000 square feet of office/commerical area, and 191 off-street parking spaces through new construction and rehabilitation of an industrial tower. Location of the project would be on a 44,575 square foot lot on Francisco, Mason and Chestnut Streets where the Bauer-Schweitzer malting plant is located.

Conformance of the project with the Comprehensive Plan should be further discussed.

Zoning of the site is RC-3 which would allow one dwelling unit for every 400 square feet of lot area. Commercial uses would be premitted on the ground floor as a principal use and on upper floors as a conditional use.

The project would require a conditional use authorization for a planned unit development (PUD) from the Department of City Planning. In addition the demolition of structures would require a demolition permit and any construction would require a building permit from the Bureau of Building Inspection. There is a possiblity that the site will be designated as a landmark. If it becomes so designated then a Certificate of Appropriations would be required. (A2)

The project would not change scenic or nearby views from existing buildings. Removal of the existing tower, although not proposed as part of this project, and removal of the silos, would lead to a change in views. A study of both long distance and nearby views should be conducted. (B2)

Deadline for Filing of an Appeal of this Determination to the City Planning Commission: February 17, 1981.

An appeal requires 1) a letter specifying the grounds for the appeal, and 2) a $25.00 filing fee.

cc: Neighborhood Groups
Abutting Property Owners
Dai Williams
Joseph Fitzpatrick
Jonathan Malone
Landmarks Board Members
100 Larking Bulletin Board

Alec S. Bash, Environmental Review Officer

ERS 6/80

The project would involve rehabilitation of an industrial tower with few windows into a residential structure which would have many windows. Consequently in the evening, the project would generate more light that it presently does, but this would not result in glare. (B2)

The project would involve the elimination of about 20 industrial and office support related jobs. As the Bauer-Schweitzer factory is going out of business, these jobs would be lost to San Francisco even if the project were not built. An alternative indicating conversion to another industrial use, which would require a conditional use permit, would be evaluated. (B3)

The project would create about 400 person-years of construction work, or enough to keep 400 people employed for a year. The project would also generate an additional two or three permanent part-time jobs for security, gardening and building maintenance services. (B3)

There is a copy of the Francisco Place Transportation Study on file with the Department of City Planning which discusses transportation impacts of the project. The project would generate approximately 1980 person trips per day. In the peak hour (4:30 - 5:30 p.m.) 135 trips on MUNI, 115 trips by automobile and 150 pedestrian trips would be generated. Vehicle/pedestrian conflicts would increase. Parking would be provided in compliance with the Planning Code. There would be 93 parking spaces for 86 dwelling units or 1.1 per unit, and 98 spaces for commercial uses or one per 490 square feet of area. A program allowing joint use of parking could increase parking availability so that overflow could be provided in the project area. Additional evaluation of the transportation effects should be conducted, including a discussion of appropriate mitigation measures. (B4)

Any increase in energy consumption due to the project may be offset by the amount of energy currently used in manufacturing malt on the site. The malting process involved heating the malt, and this requires a constant use of fuel. Energy consumption will need to be further investigated. (B11)

The site has been recommended by the Landmarks Preservation Advisory Board for inclusion as a landmark. If this recommendation is approved by the City Planning Commission and Board of Supervisors, then a Certificate of Appropriateness would be necessary for removal or alteration of any structure designated as a Landmark. Ramifications of the possible landmark designation and effects on historic resources of the site must be further evaluated. (B13)

The site has historical significance as it was the location of Meiggs Sawmill and the Lyon's Brewery. Construction of the present malting buildings would have removed all traces of Lyon's Brewery, but the remains of the sawmill were probably unaffected by the existing structures. It is possible that a variety of historical cultural materials from the 1860's and/or 1870's lie undisturbed in the original soil horizon of the project site and could be affected by the proposed construction. (B13)

There is no known evidence of remains from pre-historic periods or the Spanish and Mexican periods of San Francisco's history associated with the site area. For a more detailed explanation of the archeological significance and potential of the site, please refer to Archeological Resources at the Franicsco Place Development, a report on file at the Department of City Planning, Office of Environmental Review. Further archeological testing must be conducted to determine if there might be any archeological resources on the site. (B13)

The site is less densly populated than other nearby blocks because much of it is in industrial use. If the project were approved as proposed, the block would have fewer units than allowed by code, i.e. 86 compared to 111. The proposed density would be similar to that of surrounding blocks which contain flats, apartments and condominiums in 3-4 story structures. Precise figures on block density are not available because block level statistics from the 1980 Census have not been released. Growth inducing effects should be considered. (B3)

Potential problems relating to housing on the site must be evaluated. Although the developer has proposed to provide 15% of the housing for moderate income people, funding sources for the provision of and retention of these units in the moderate income price range must be researched. Another issue needing analysis would be the desirability of obtaining a stable residential population. (B3)

Traffic increases due to the project would raise the local ambient noise level by less than 1.0 dBA, which is considered undetectable to the human ear. During construction, this would be a temporary increase of 3-18 dBA in the ambient noise level, resulting in construction noise of about 83 dBA. The San Francisco noise ordinance prohibits operation of powered equipment if noise levels exceed 80 dBA at 100 feet. The sponsor has agreed through a letter of commitment to observe noise mitigation measures to reduce noise impacts. For a more detailed explanation of expected noise levels that would be caused by the project, please refer to the Francisco Place Acoustical Study on file with the Department of City Planning, Office of Environmental Review. Potential exterior noise problems will be adequately mitigated and no further review will be necessary. (B5)

Title 25 Noise Insulation Standards are applicable to all residential projects, and require that interior noise levels caused by exterior sources, with windows closed, not exceed 45 dBA. In order to meet this standard, the existing exterior noise level of 66 dBA near the site would have to be reduced at least 21 dBA. A reduction of 28 dBA could be achieved through insulation measures proposed for the project. Potential noise problems will be adequately mitigated by the letter of commitment from the project sponsor and no further review will be necessary. (B5)

Due to the potential addition of 700 vehicle trips per day, air quality effects need to be further discussed. (B6)

Possible effects of this project upon police and services are not yet known and should be analyzed. (B7)

Since the only biota on the site are urban species, effects on plant and animals need not be further evaluated. (B8)

The site is in a special geologic study area where there is potential ground failure hazard, and it is near areas where there is a potential for both ground failure and inundation following a 1906-type of earthquake. Consequently, a geologic and soils engineering investigation is required for any new development on the site. A California-licensed soils engineer has investigated the site, and his report on excavation procedures and foundation design is on file with the Department of City Planning, Office of Environmental Review. The sponsor has agreed to follow the recommendations of the soils engineer. Based on mitigation measures included in the project, there would be no significant geologic effects and there need be no further discussion. (B7)

There must be an evaluation of proposed excavation and grading for the project including the amount of excavation, potential for subsidence, dewatering necessary and similar issues and potential effects. (B9)

The project would involve demolition and removal of several buildings on the site, including a two-story masonry office building on Chestnut Street, a one-story wood frame house on Mason Street, a corrugated iron shed on Francisco Street, eight storage silos and a railroad spur. It is not known how many tons of debris would have to be removed from the site, but all spoils would be disposed of in an approved disposal site and need no further review. (B9)

The project sponsor has submitted a letter of commitment for the following mitigation measures:

Parking: Flexible use of residential and office parking spaces to help satisfy visitor demand and to accommodate neighborhood parking in the evening on a first-come, first-served basis, if permitted as part of the conditional use authorization.

Pedestrian/vehicle conflicts: Separation of commercial and residential driveway access, thus dispersing project-generated vehicle trips. Routing driveways away from sensitive pedestrian groups such as the elderly and children associated with Telegraph Hill Neighborhood Center.

Noise: The sponsor will include a clause in the construction contract requiring the contractor to use equipment which meets noise emission standards in the San Francisco Noise Ordinance. Failure to comply could result in revocation of the building permit for the project. For additional noise mitigations, refer to the acoustics study cited under B.5.a. above. During occupancy, interior noise levels would be reduced as much as 21 dBA, as a result of the construction materials and windows proposed for the project.

Air quality: During construction and demolition, the sponsor agrees to require the contractor to water down the site as needed to reduce air-borne particulate matter.

Geotechnical: The sponsor agrees to follow the recommendations of a California licensed soils engineer regarding excavation and foundation designs. The engineer's report will be submitted to the Bureau of Building Inspection for review. For additional mitigations, please refer to the soils report on file with the Office of Environmental Review.

Energy: The project would comply with energy conservation requirements of Title 24 of the California Administrative Code.

ENVIRONMENTAL EVALUATION CHECKLIST
(Initial Study)

Project File No: EE [illegible] Title: Francisco Place

Address: [illegible] Street Assessor's Block and Lot: [illegible]

	Yes	Maybe	No	N/A	Disc.**
A. GENERAL CONSIDERATIONS:					
1. Would the project conflict with objectives and policies in the Comprehensive Plan (Master Plan) of the City?			x		
2. Would the project require a variance, or other special authorization under the City Planning Code?	x				
3. Would the project require approval of permits from City Departments other than DCP or BBI, or from Regional, State or Federal Agencies?			x		
*4. Would the project conflict with adopted environmental plans and goals?			x		
B. ENVIRONMENTAL IMPACTS:					
1. Land Use. Would the proposed projects:					
a. Be different from surrounding land uses?			x		
*b. Disrupt or divide the physical arrangement of an established community?			x		
2. Visual Quality and Urban Design. Would the proposed project:					
a Obstruct or degrade any scenic view or vista open to the public?			x		x
b. Reduce or obstruct views from adjacent or nearby buildings?			x		x
*c. Create a negative aesthetic effect?			x		x
d. Generate light or glare affecting other properties?		x			x
3. Population/Employment/Housing. Would the proposed project:					
a. Alter the density of the area population?		x			x

**Further discussion warranted

*Denotes State EIR Guidelines, Appendix G, normally significant effect.

(1)

ER7a (rev. 12/80)

3. Cont'd.	Yes	Maybe	No	N/A	Disc.
*b. Have a growth-inducing effect?		X			X
*c. Require relocation of housing or businesses, with a displacement of people, in order to clear the site?			X		
d. Create or eliminate jobs during construction and operation and maintenance of the project?	X				X
e. Create an additional demand for housing in San Francisco?			X		
4. Transportation/Circulation. Would the construction or operation of the project result in:					
a. Change in use of existing transportation systems? (transit, roadways, pedestrian ways, etc.)	X				X
*b. An increase in traffic which is substantial in relation to existing loads and street capacity?		X			X
c. Effects on existing parking facilities, or demand for new parking?	X				X
d. Alteration to current patterns of circulation or movement of people and/or goods?			X		
e. Increase in traffic hazards to motor vehicles, bicyclists or pedestrians?		X			X
f. A need for maintenance or improvement or change in configuration of existing public roads or facilities?			X		
g. Construction of new public roads?			X		
5. Noise.					
a. Would the proposed project result in generation of noise levels in excess of those currently existing in the area?					
b. Would existing noise levels impact the proposed use?		X			X
c. Are Title 25 Noise Insulation Standards applicable?	X				X

	Yes	Maybe	No	N/A	Disc.
6. Air Quality/Climate. Would the proposed project result in:					
*a. Violation of any ambient quality standard or contribution to an existing air quality violation?			✓		✓
*b. Exposure of sensitive receptors to air pollutants?			✓		
c. Creation of objectionable odors?			✓		
d. Burning of any materials including brush, trees, or construction materials?			✓		
e. Alteration of wind, moisture, or temperature (including sun shading effects), or any change in climate, either locally or regionally?			✓		
7. Utilities and Public Services. Would the proposed project:					
a. Have an effect upon, or result in a need for new or altered, governmental services in any of the following?					
fire protection		✓			✓
police protection		✓			✓
schools			✓		✓
*parks or other recreational facilities			✓		
maintenance of public facilities			✓		
power or natural gas			✓		
communications systems			✓		
water			✓		
*sewer/storm water drainage			✓		
solid waste collection and disposal			✓		
8. Biology.					
a. Would there be a reduction in plant and/or animal habitat or interference with the movement of migratory fish or wildlife species?			✓		
*b. Would the project affect the existence or habitat of any rare, endangered or unique species located on or near the site?			✓		✓
c. Would the project require removal of mature scenic trees?			✓		

	Yes	Maybe	No	N/A	Disc.
9. Land. (topography, soils, geology) Would proposed project result in or be subject to:					
*a. Potentially hazardous geologic or soils conditions on or immediately adjoining the site? (slides, subsidence, erosion, and liquefaction)	X				X
b. Grading? (consider height, steepness and visibility of proposed slopes; consider effect of grading on trees and ridge tops)	X				X
c. Generation of substantial spoils during site preparation, grading, dredging or fill?	X				X
10. Water. Would the proposed project result in:					
*a. Reduction in the quality of surface water?			X		
*b. Change in runoff or alteration to drainage patterns?		X			
*c. Change in water use?		X			
*d. Change in quality of public water supply or in quality or quantity (dewatering) of ground water?			X		X
11. Energy/Natural Resources. Would the proposed project result in:					
*a. Any change in consumption of energy?		X			X
*b. Substantial increase in demand on existing energy sources?			X		
c. An effect on the potential use, extraction, conservation or depletion of a natural resource?			X		
12. Hazards. Would the proposed project result in:					
*a. Increased risk of explosion or release of hazardous substances (e.g., oil, pesticides, chemicals or radiation), in the event of an accident, or cause other dangers to public health and safety?			X		
*b. Creation of or exposure to a potential health hazard.			X		
*c. Possible interference with an emergency response plan or emergency evacuation plan?			X		

13. Cultural. Would the proposed project:	Yes	Maybe	No	N/A	Disc.
*a. Include or affect a historic site, structure, or building?		x			x
*b. Include or affect a known archaeological resource or an area of archaeological resource potential?		x			x
*c. Cause a physical change affecting unique ethnic or cultural values?			x		

C. MITIGATION MEASURES:	Yes	No	Disc.
Are mitigation measures included in the project?	x		x
Are other mitigation measures available?			

D. ALTERNATIVES:	Yes	No	Disc.
Were other alternatives considered:	x		

E. MANDATORY FINDINGS OF SIGNIFICANCE:

	Yes	No	Disc.
*1. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal, or eliminate important examples of the major periods of California history or prehistory?	x		
*2. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?		x	
*3. Does the project have possible environmental effects which are individually limited, but cumulatively considerable? (Analyze in the light of past projects, other current projects, and probable future projects?)	x		
*4. Would the project cause substantial adverse effects on human beings, either directly or indirectly?		x	
*5. Is there a serious public controversy concerning the possible environmental effect of the project?		x	

X. APPENDICES

On the basis of this initial evaluation:

____ I find the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared by the Department of City Planning.

____ I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because the mitigation measures, numbers____, in the discussion have been included as part of the proposed project. A NEGATIVE DECLARATION will be prepared.

✓ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

Robert W. Passmore
Assistant Director-Implementation

for

Rai Y. Okamoto
Director

Date: 2/3/81